SACRED HEART COLLEGE (AUTONOMOUS)

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Ready for Every Good Work

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6.5.3 AUDIT ON EXAMINATION AND EVALUTION SYSTEM

REPORT

May 2023

SACRED HEART COLLEGE (AUTONOMOUS)

TIRUPATTUR, TIRUPATTUR DT.

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AUDIT ON EXAMINATION AND EVALUATION SYSTEM -2022-2023

1. INTRODUCTION

The audit process of the Examination and Evaluation System (EES) at Sacred Heart College will be conducted once every five years with the following objectives:

1. To identify, update, and highlight areas for improvement in the Examination and Evaluation System (EES) at SHC.

2. To identify and address any gaps in the current Examination and Evaluation System (EES), aiming for improvement.

3. To establish systems to overcome any limitations present in the existing Examination and Evaluation System (EES).

The first Examination and Evaluation System (EES) audit was conducted for the April 2018 semester examination evaluation process during the academic year 2017-2018. The second Examination and Evaluation System (EES) audit was conducted for the April 2023 semester examination evaluation process during the academic year 2022-2023.

2. PROCESS

The audit procedure is outlined as follows:

- The semester evaluation shall be completed according to the norms approved by the Academic Council of the Sacred Heart College.

- After the completion of the valuation, the audit of the Examination and Evaluation System (EES) shall commence.

- For each course, 20% of the answer scripts shall be randomly selected. This selection process covers all courses across the UG and PG programmes, with one answer script chosen randomly for every five consecutive answer scripts.

- Revaluation of the randomly selected answer scripts is conducted, ensuring that the evaluation process is entirely external. If an external expert is unavailable for a particular subject, the department's expertise can be utilized to assign a faculty member other than the one who initially evaluated the answer scripts and also not the one who taught the course.

- The Controller of Examinations, in consultation with the Head of the Department of the relevant discipline, may select the external examiner for a specific discipline.

- After completing the second valuation for 20% of the answer scripts, a comparison is made between the scores obtained in the first and second valuations. If there is a difference of 11/8 marks depending on the maximum external score of 70/50 marks, respectively, the valuation is considered substandard. If all the randomly selected answer scripts (5 out of 25 and 4 out of 20) from a bundle have a difference of 11/8 marks depending on the maximum external score of 70/50 marks, respectively, then the entire bundle is sent for a third valuation.

- In the case of answer scripts undergoing two evaluations, the average of the first and second evaluation marks should be taken as the final marks. If a student requests a photocopy of an answer script at this point, the question-wise average mark should be provided along with the average final marks. The first and second evaluation marks should not be disclosed to the student.

- For answer scripts that undergo three evaluations, the nearest of the two marks among the three evaluations is chosen, and the average is calculated as the final marks. If a student requests a photocopy of an answer script at this point, the question-wise average mark should be provided, taking into account the nearest of the two evaluations. The first, second, and third evaluation marks should not be disclosed to the student.

- The results should be published only after the completion of the self-audit process.

- The findings and analysis of the Examination and Evaluation System (EES) process need to be presented to the IQAC to introduce more quality metrics, measures, and processes into the Examination and Evaluation System (EES).

3. DATA

3.1   Data for April 2018 Semester Examinations

1. Total number of students appeared for regular examination in April 2018: 4224

a) UG : 3277

b) PG :   947

2. Total number of scripts evaluated (First Valuation): 20464

3. Total number of scripts randomly selected and evaluated (Second Valuation) : 4012

4. Total number of scripts evaluated after identifying high difference bundles (Third Valuation): 1014

5. Number of scripts went through all three evaluations: 216

6. Number of days taken to publish the results:28

7. Number of scripts reevaluated based on student's request :388

8. Number of scripts that were reevaluated and had their results changed to a passing state:132
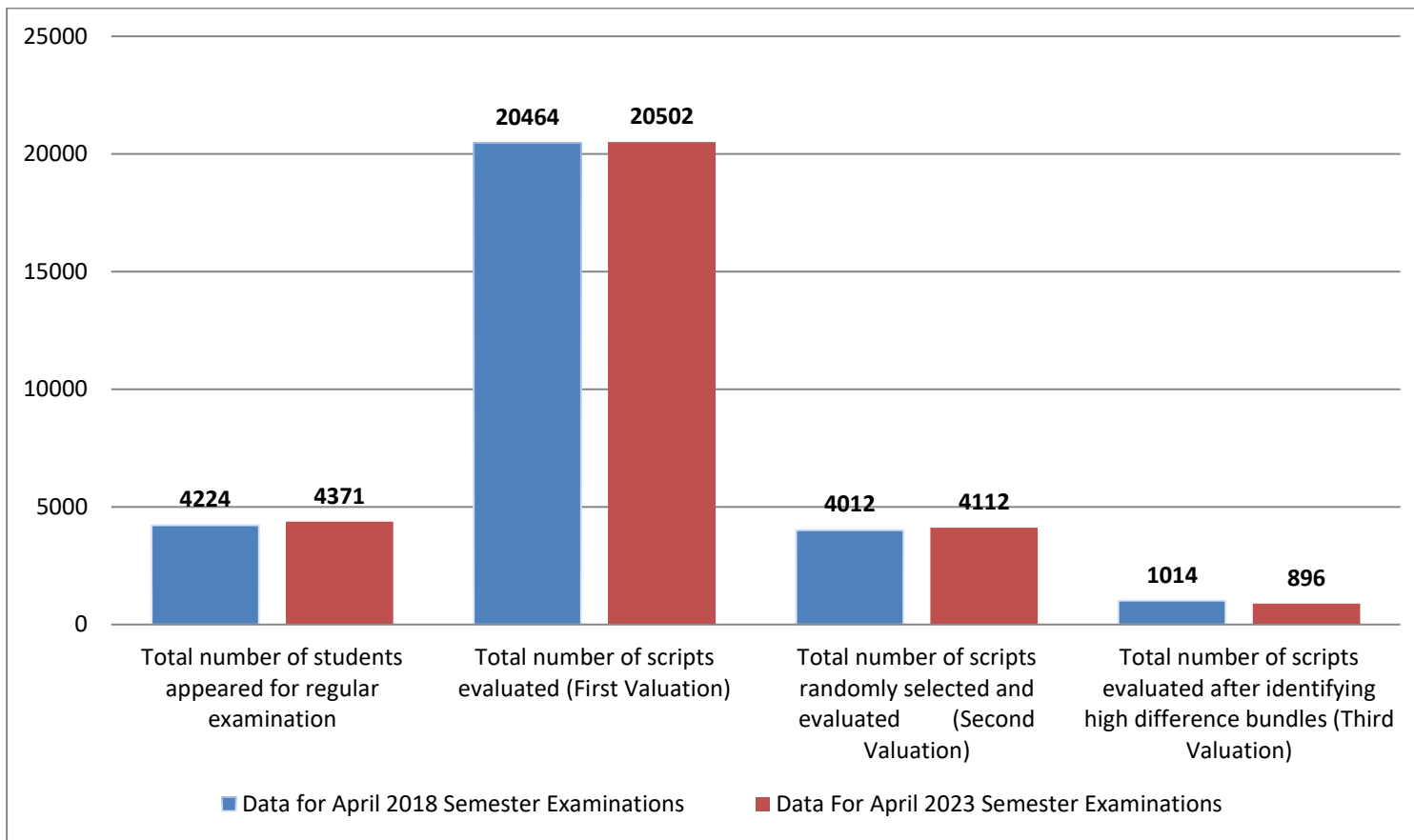
3.2   Data for April 2023 Semester Examinations

1. Total number of students appeared for regular examination in April 2023: 4371

(a) UG : 3496

(b) PG :   875

2. Total number of scripts evaluated (First Valuation): 20502

3. Total number of scripts randomly selected and evaluated (Second Valuation) : 4112

4. Total number of scripts evaluated after identifying high difference bundles (Third Valuation): 896

5. Number of scripts went through all three evaluations: 182

6. Number of days taken to publish the results:17

7. Number of scripts reevaluated based on student's request :1044

8. Number of scripts that were reevaluated and had their results changed to a passing state:282

3.3   Data in Visual Form

	Total number of students appeared for regular examination	Total number of scripts evaluated (First Valuation)	Total number of scripts randomly selected and evaluated (Second Valuation)	Total number of scripts evaluated after identifying high difference bundles (Third Valuation)
Data for April 2018 Semester Examinations	4224	20464	4012	1014
Data For April 2023 Semester Examinations	4371	20502	4112	896
Difference	(+)147	(+)38	(+)100	(-)118

(+) Increasing in Numbers, (-) Decreasing in Numbers

Category	Data for April 2018 Semester Examinations	Data For April 2023 Semester Examinations
Total number of students appeared for regular examination	4224	4371
Total number of scripts evaluated (First Valuation)	20464	20502
Total number of scripts randomly selected and evaluated (Second Valuation)	4012	4112
Total number of scripts evaluated after identifying high difference bundles (Third Valuation)	1014	896

■ Data for April 2018 Semester Examinations   ■ Data For April 2023 Semester Examinations

	Number of days taken to publish the results
Data for April 2018 Semester Examinations	28
Data For April 2023 Semester Examinations	17
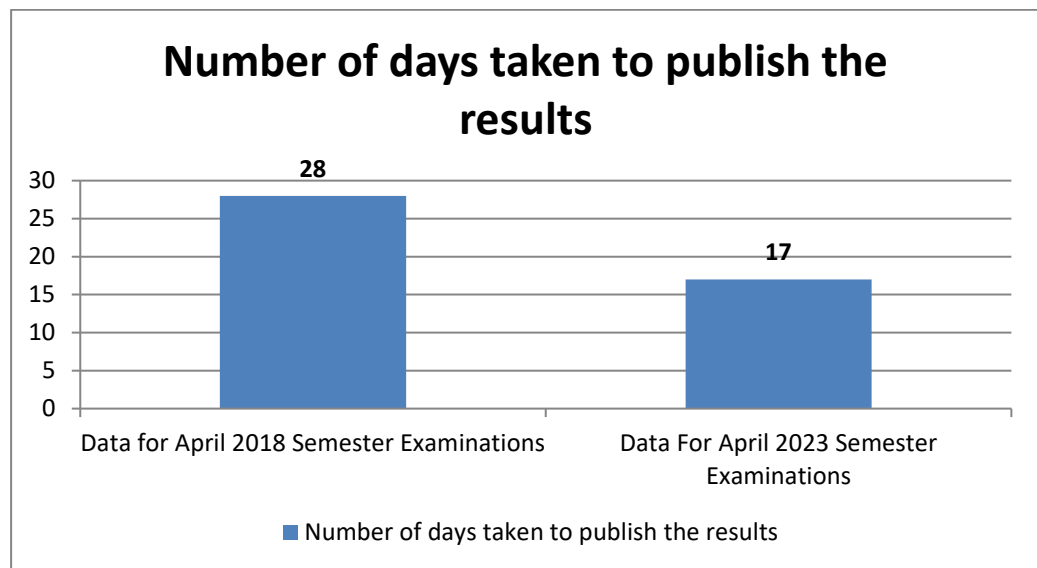
Number of days taken to publish the results

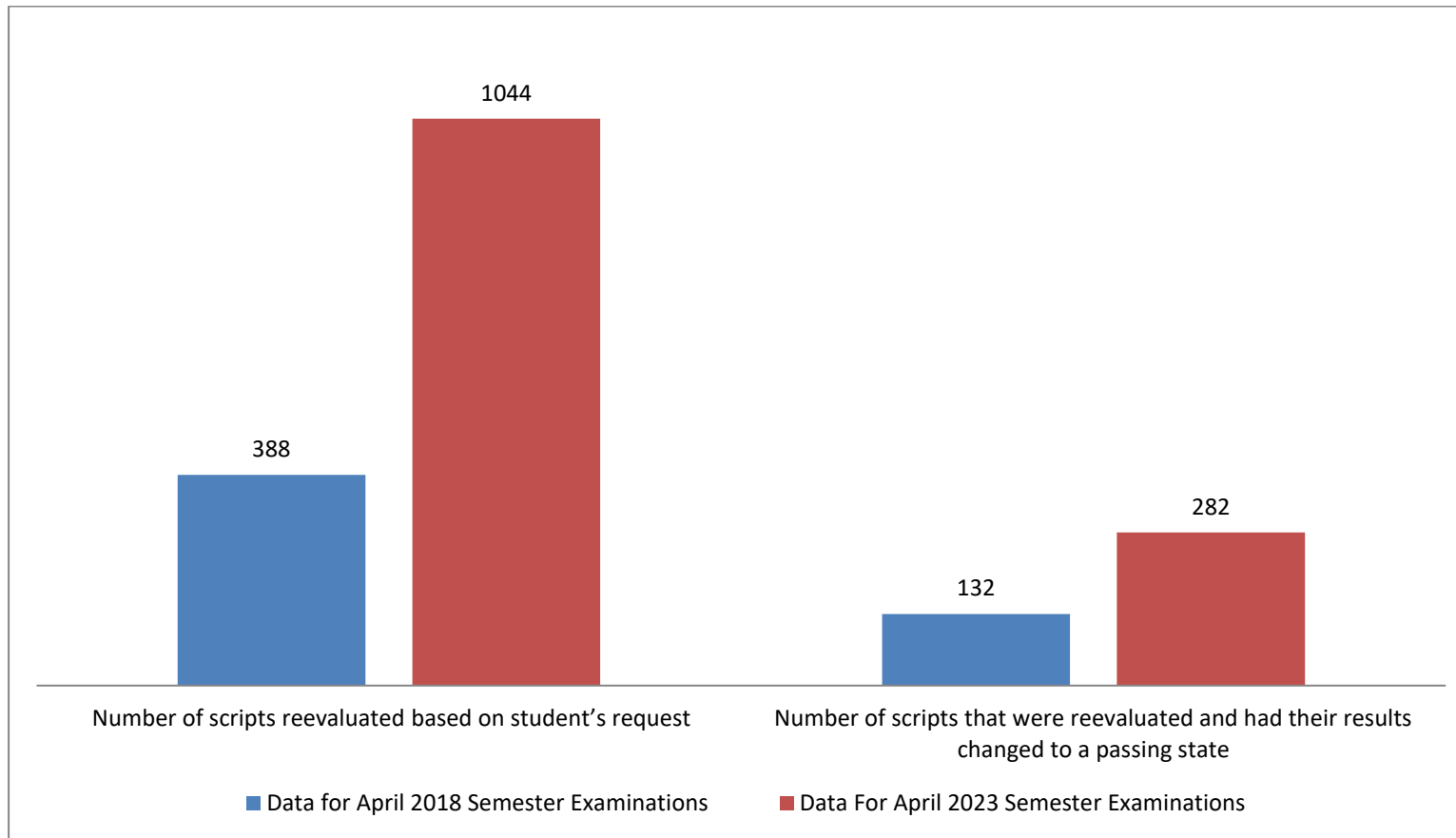|	Number of scripts reevaluated based on student's request	Number of scripts that were reevaluated and had their results changed to a passing state
Data for April 2018 Semester Examinations	388	132
Data For April 2023 Semester Examinations	1044	282
Difference	(+)656	(+)150

(+) Increasing in Numbers, (-) Decreasing in Numbers

1044	
388	
	282
	132

Number of scripts reevaluated based on student's request

Number of scripts that were reevaluated and had their results changed to a passing state

■ Data for April 2018 Semester Examinations   ■ Data For April 2023 Semester Examinations

4. DATA ANALYSIS

4.1 To determine the percentage of scripts selected at random over the total number of scripts:

1. **Determine the number of scripts selected at random**: This refers to the specific number of scripts that were chosen randomly for evaluation.

2. **Determine the total number of scripts:** This refers to the overall number of scripts available for evaluation.

3. **Calculate the percentage:** Divide the number of scripts selected at random by the total number of scripts, and then multiply the result by 100 to obtain the percentage.

4. **The formula is as follows:**
   Percentage = (Number of scripts selected at random / Total number of scripts) * 100

4.2 To determine the percentage of scripts of third evaluation over the random evaluation:

1. **Determine the number of scripts of third evaluation:** Identify the specific quantity of scripts that underwent a third evaluation.

2. **Determine the number of scripts in the random evaluation:** Identify the total count of scripts that were chosen randomly for evaluation purposes.

3. **Calculate the percentage**: Divide the number of scripts of third evaluation by the number of scripts in the random evaluation, and then multiply the result by 100 to obtain the percentage.

4. **The formula is as follows:**
   Percentage = (Number of scripts of third evaluation / Number of scripts selected for random
   evaluation) * 100

4.3 To calculate the percentage of scripts of third valuation over the first valuation:

1. **Determine the number of scripts of third valuation**: Identify the specific quantity of scripts that underwent a third valuation.

2. **Determine the number of scripts in the first valuation**: Identify the total count of scripts that were evaluated during the first valuation.

3. **Calculate the percentage**: Divide the number of scripts of third valuation by the number of scripts in the first valuation, and then multiply the result by 100 to obtain the percentage.

4. **The formula is as follows**:
   Percentage = (Number of scripts of third valuation / Number of scripts in the first valuation) * 100

4.4 To calculate the percentage of scripts reevaluated based on student's request over the total number of scripts:

1. **Determine the number of scripts reevaluated based on student's request**: Identify the specific quantity of scripts that reevaluated based on student's request

2. **Determine the total number of scripts:** This refers to the overall number of scripts available for evaluation.

3. **Calculate the percentage**: Divide the number of scripts reevaluated based on student's request by the total number of scripts, and then multiply the result by 100 to obtain the percentage.

4. **The formula is as follows**:
   Percentage = (Number of scripts reevaluated based on student's request / Number of scripts available for evaluation) * 100

4.5 To calculate the percentage of scripts where results changed to pass state in the process of reevaluation

1. **Determine the number of scripts where results changed to pass state in the process of reevaluation:** Identify the specific quantity of scripts where results changed to pass state in the process of reevaluation

2. **Determine the number of scripts reevaluated based on student's request**: Identify the specific quantity of scripts that reevaluated based on student's request

3. **Calculate the percentage**: Divide the number of scripts where results changed to pass state in the process of reevaluation by the number of scripts reevaluated based on student's request, and then multiply the result by 100 to obtain the percentage.

4. **The formula is as follows**:

   Percentage = (Number of scripts where results changed to pass state in the process of reevaluation / Number of scripts reevaluated based on student's request) * 100

4.4 Data Analytics for April 2018 Examination

1. % of scripts selected at random over the total number of scripts : ((4012 / 20464) * 100) = 19.60%

2. % of scripts of third evaluation over the random evaluation(Second Evaluation) : ((1014 / 4012) * 100) = 25.27%

3. % of scripts of third valuation over the first evaluation : ((1014 / 20464) * 100) = 4.96%

4. % of scripts reevaluated based on student's request over the total number of scripts : ((388/20264)*100)=1.92

5. % of scripts where results changed to pass state in the process of reevaluation based on student's request = ((132/388)*100)=34.02%

4.5 Data Analytics for April 2023 Examination

1. % of scripts selected at random over the total number of scripts : ((4112 / 20502) * 100) = 20.01%

2. % of scripts of third evaluation over the random evaluation(Second Evaluation) : : (896 / 4112) * 100) = 21.78%

3. % of scripts of third evaluation over the first evaluation : (896 / 20502) * 100) = 4.37%

4. % of scripts reevaluated based on student's request over the total number of scripts : ((1044/20502)*100)=5.09

5. % of scripts where results changed to pass state in the process of reevaluation based on student's request = ((282/1044)*100)=27.01%
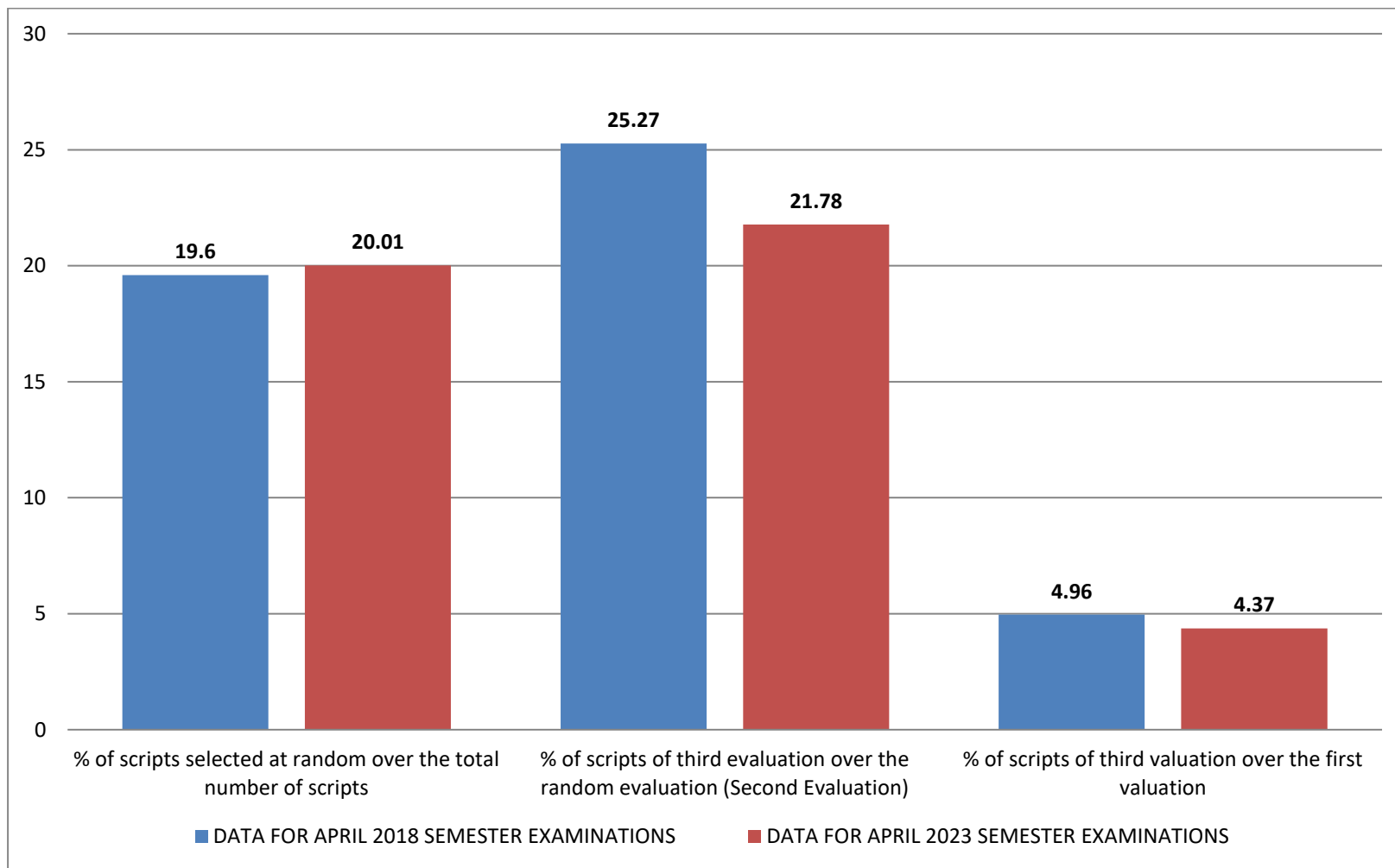
4.6   Data in Visual Form

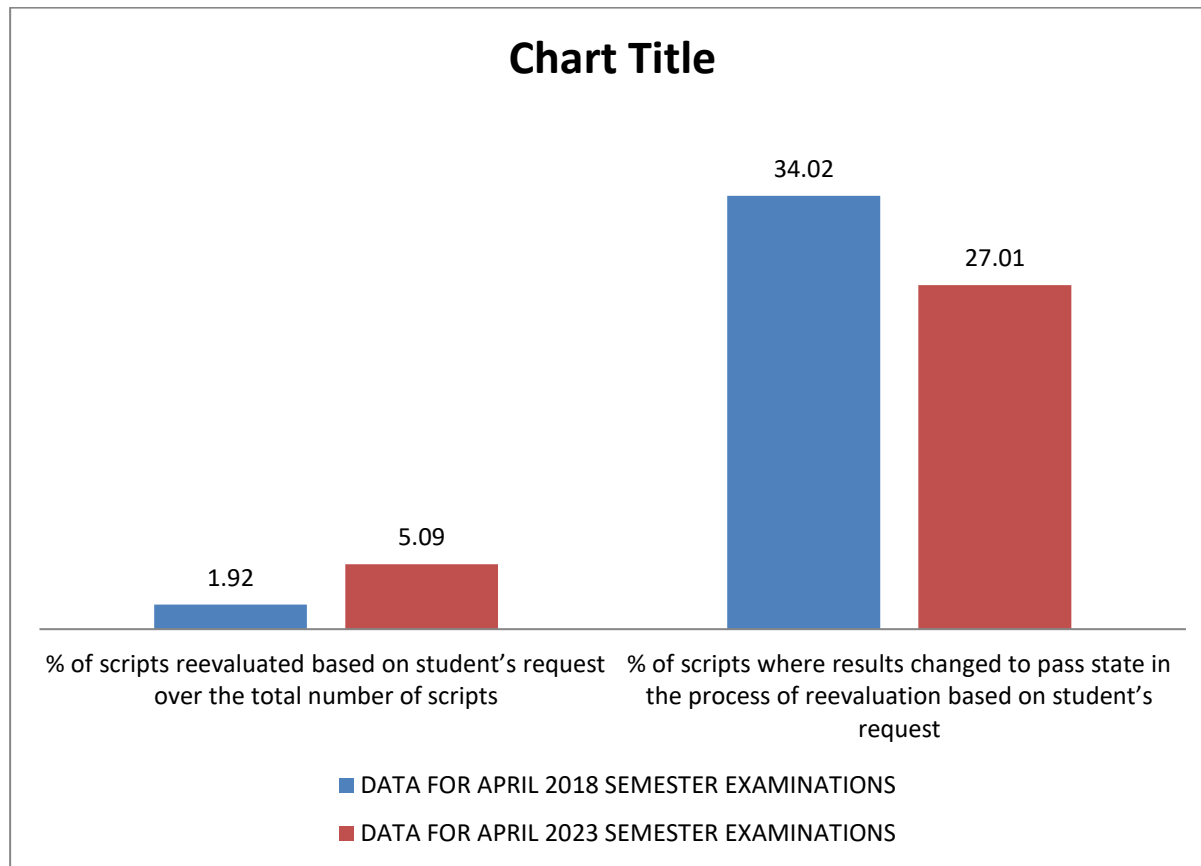|	% of scripts selected at random over the total number of scripts	% of scripts of third evaluation over the random evaluation (Second Evaluation)	% of scripts of third valuation over the first valuation
DATA FOR APRIL 2018 SEMESTER EXAMINATIONS	19.60	25.27	4.96
DATA FOR APRIL 2023 SEMESTER EXAMINATIONS	20.01	21.78	4.37

	% of scripts selected at random over the total number of scripts	% of scripts of third evaluation over the random evaluation (Second Evaluation)	% of scripts of third valuation over the first valuation
DATA FOR APRIL 2018 SEMESTER EXAMINATIONS	19.6	25.27	4.96
DATA FOR APRIL 2023 SEMESTER EXAMINATIONS	20.01	21.78	4.37

	% of scripts reevaluated based on student's request over the total number of scripts	% of scripts where results changed to pass state in the process of reevaluation based on student's request
DATA FOR APRIL 2018 SEMESTER EXAMINATIONS	1.92	34.02
DATA FOR APRIL 2023 SEMESTER EXAMINATIONS	5.09	27.01

Chart Title

34.02

27.01

5.09

1.92

% of scripts reevaluated based on student's request over the total number of scripts

% of scripts where results changed to pass state in the process of reevaluation based on student's request

■ DATA FOR APRIL 2018 SEMESTER EXAMINATIONS
■ DATA FOR APRIL 2023 SEMESTER EXAMINATIONS

4.7   Analytics using Correlation coefficient April 2018 Examination

1. Correlation coefficient between first and random(second) evaluations: 0.77422   (Indicates a strong positive linear relationship)

2. Correlation coefficient between first and third evaluations: 0.60572   (Indicates a moderate positive linear relationship)

3. Correlation coefficient between second and third evaluations = 0.5864   (Indicates a moderate positive linear relationship)

4.8   Analytics using Correlation coefficient April 2023 Examination

1. Correlation coefficient between first and random(Second) evaluations: 0.81785

   UG Courses : 0.82745   *(Indicates a strong positive linear relationship)*

   PG Courses : 0.68495   *(Indicates a medium positive linear relationship)*

2. Correlation coefficient between first and third evaluations: 0.72312

    UG Courses : 0.72466   *(Indicates a strong positive linear relationship)*

    PG Courses : 0.60433   *(Indicates a medium positive linear relationship)*

3. Correlation coefficient between second and third evaluations = 0.58719

   (Indicates a moderate positive linear relationship)

4.9   Data in visual form

	Correlation coefficient between first and random evaluations	Correlation coefficient between first and third evaluations	Correlation coefficient between second and third evaluations
DATA FOR APRIL 2018 SEMESTER EXAMINATIONS	0.77422	0.60572	0.5864
DATA FOR APRIL 2023 SEMESTER EXAMINATIONS	0.81785	0.72312	0.58719
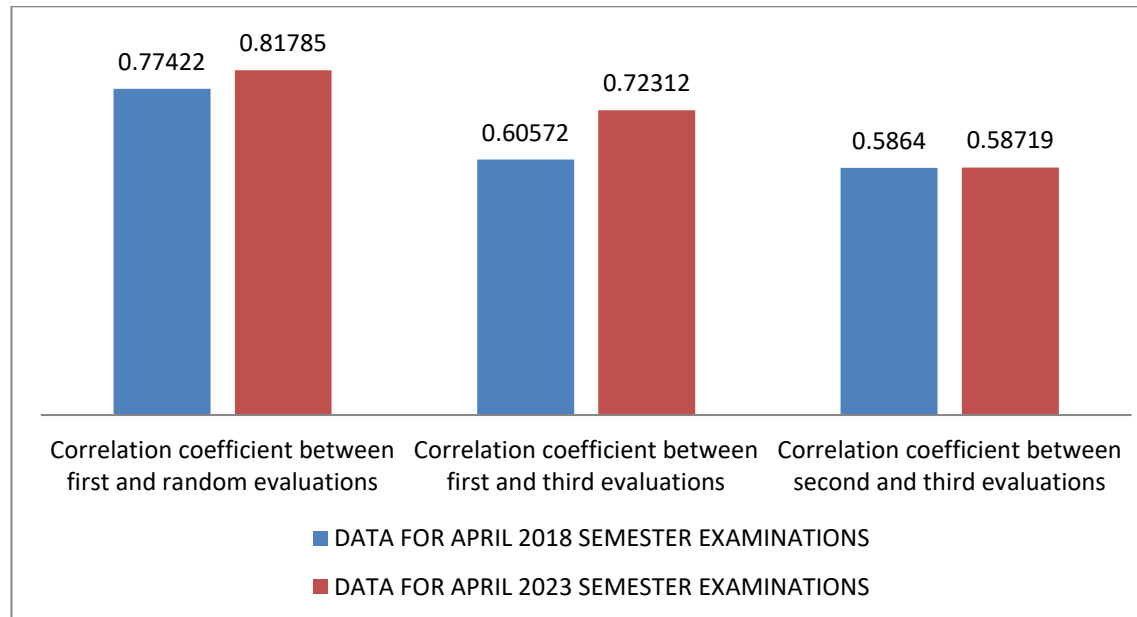
4.10   Differences between first and second evaluation scores - April 2023:

Difference	No of Scripts	Difference	No of Scripts
0	263	21	22
1	554	22	20
2	445	23	9
3	382	24	12
4	377	25	6
5	346	26	7
6	268	27	6
7	226	28	7
8	192	29	4
9	184	30	4
10	141	31	6
11	125	32	1
12	105	33	2
13	94	35	1
14	84	37	2
15	60		
16	52		
17	43		
18	23		
19	26		
20	13		
	4003		109
4003+109=4112			

APRIL 2023 Exams

Difference in Range	Number of scripts	Total in a Range	%
0	263	263	06.40%
1 to 5	2104	3115	75.75%
6 to 10	1011		
11 to 15	468	625	15.20%
16 to 20	157		
21 to 25	69	97	2.36%
26 to 30	28		
31 to 35	10	12	0.29%
36 to 40	2		
	4112	**4112**	**100.00%**

APRIL 2018 Exams

Difference in Range	Number of scripts	Total in a Range	%
0	221	221	05.51%
1 to 5	1637	2768	68.99%
6 to 10	1131		
11 to 15	605	871	21.71%
16 to 20	266		
21 to 25	105	136	03.39%
26 to 30	31		
31 to 35	15	15	00.37%
36 to 40	0		
41 to 45	1	1	00.02%
	4012	**4012**	**100.00%**

4.11 Differences between Second and third evaluation scores- April 2023:

Difference	No of Scripts
0	12
1	17
2	11
3	11
4	12
5	15
6	6
7	12
8	6
9	4
10	6
11	13
12	8
13	9
14	8
15	3
16	5
17	5
18	3
19	4
22	3
24	2
25	1
26	1
27	2
28	1
31	1
37	1
	182

APRIL 2023 Exams

Difference in Range	Number of scripts	Total in a Range	%
0	12	12	06.59%
1 to 5	66	100	54.95%
6 to 10	34		
11 to 15	41	58	31.87%
16 to 20	17		
21 to 25	6	10	05.5%
26 to 30	4		
31 to 35	1	2	01.09%
36 to 40	1		
	182	**182**	**100.00%**

4.11   Differences between first and third evaluation scores- April 2023:

Difference	No of Scripts	Difference	No of Scripts
0	36	21	15
1	66	22	5
2	59	23	6
3	69	24	7
4	64	25	7
5	42	26	5
6	44	27	3
7	43	28	3
8	51	29	1
9	54	30	2
10	35	31	2
11	29	34	1
12	31	35	1
13	33		
14	25		
15	33		
16	26		
17	27		
18	19		
19	25		
20	27		
	838		58
838+58=896			

APRIL 2023 EXAMS

Difference in Range	Number of scripts	Total in a Range	%
0	36	36	04.02%
1 to 5	300	527	58.82%
6 to 10	227		
11 to 15	151	275	30.69%
16 to 20	124		
21 to 25	40	54	06.03%
26 to 30	14		
31 to 35	4	4	00.45%
36 to 40	0		
	896	**896**	**100.00%**

APRIL 2018 EXAMS

Difference in Range	Number of scripts	Total in a Range	%
0	32	32	03.16%
1 to 5	282	529	52.17%
6 to 10	247		
11 to 15	179	313	30.87%
16 to 20	134		
21 to 25	78	115	11.34%
26 to 30	37		
31 to 35	18	21	02.07%
36 to 40	3		
41 to 45	4	4	00.39%
	1014	1014	100.00%

5. RECOMMENDATIONS AND CONCLUSIONS

5.1 Observation 1:

Observation:

"In the case of answer scripts undergoing two valuations, the average of the first and second valuation marks should be taken as the final marks. If a student requests a photocopy of an answer script at this point, the question-wise average mark should be provided along with the average final marks. The first and second valuation marks should not be disclosed to the student."

The mentioned rule significantly impacts students' marks since the scripts are randomly selected for a second evaluation. Consequently, this second evaluation is conducted with greater scrutiny, increasing the likelihood of a reduction in marks for the randomly chosen scripts compared to the rest of the students' scripts in that batch.

Recommendation:

If the entire bundle is not sent for evaluation, instead of taking the average of the first and second evaluation marks, the first evaluation marks can be considered as the final marks.

5.2 Observation 2

Observation:

Examinations and evaluation audits are presently carried out only once every five years. However, during these audit periods, faculty members demonstrate sharp attentiveness in evaluating papers.

Recommendation:

It is recommended to enhance the frequency of audits to improve assessment, preferably conducting them more frequently than once every five years.

5.3 Observation 3

Observation:

The percentage of scripts where results changed to pass state in the process of reevaluation is high.

Recommendation:

It's important to strike a balance between helping evaluators improve their accuracy and maintaining the integrity of the evaluation process. The ultimate goal should be to support both students and evaluators in a way that upholds the value of education and maintains the integrity of assessments.

5.4 Conclusions

From the analysis it is concluded that approximately 4% deviation in the evaluations is observed.

Dr. L. RAVI.   **Mr. K. MANOJKUMAR.**   **Rev. Dr. S. JOHN BORG,SDB**

(VP Academics Shift –1)   **(Admin)**   **(Controller of Examinations)**