



COMPARATIVE ANALYSIS OF TERM II AND III RESULT USING SPSS, 2075



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Introduction

This report provides results of the comparative analysis of Second and Third (i.e., Final) Term Evaluation of the academic year 2075 B.S. The report does not include analysis of grade VIII and X because their evaluation was conducted by the government. In addition, this report does not provide information regarding the causes of increase or decrease in marks of the term wise evaluations.

Analyses were based on the marks obtained by the students out of 100 marks in each subject, i.e. percentage secured. The total 100 marks comprises of Examination (Theory + Practical, or Theory wherever applicable) + Continuous Assessment System (CAS) marks. Evaluation of any subject was adjusted to 100 marks even if it was of less than 100 marks.

Methods

Data

The data were obtained from mark sheet ledgers: [DSS – Marksheet Ledger Second Term Exam - 2075](#) and [DSS – Marksheet Ledger Final Term Exam – 2075](#) referred by the Examination Committee Coordinator (Mr. Arjun Khatiwada).

Data Entry and Analysis

Data entry and statistical analyses were performed using the ‘Statistical Package for the Social Science’ (SPSS) Software (IBM, New York, US). Average marks obtained in Second Term and Third Term was compared by a statistical test (t-test). To compare the results, following hypotheses were set and tested:

Null Hypothesis (H_0): There is no significant difference in the performance between Second Term Evaluation and Third Term Evaluation, i.e. $\mu_F = \mu_S$

Alternate Hypothesis (H_1): There is a significant difference in performance between Second Term Evaluation and Third Term Evaluation, i.e. $\mu_F \neq \mu_S$

Level of Significance: The level of significance is defined as the probability (p) of rejecting a null hypothesis by the test when it is really true, which is denoted as α . A p-value of ≤ 0.05 is widely considered to be statistically significant result. That is, p (Type I error) = α . Type I error is the rejection of a true null hypothesis (also known as a "false positive" finding). Type II error is failing to reject a false null hypothesis (also known as a "false negative" finding).

Results

Results are provided grade wise. Results of third term were compared with that of second term.

Grade I

The evaluation was based on 43 students. The table below provides **Mean and Median** marks obtained by grade I students in different subjects, including performing arts and reading book tests. Furthermore, the marks obtained in first and second term examinations are compared, and inference and conclusion are provided.

Subject	Term II		Term III		Inference	Conclusion
	Mean	Median	Mean	Median	p-value	
English	84.55	86.1	84.1	84.2	0.741	<u>In third term, 50% of grade I students scored >84.2 in English.</u> Since $p > \alpha$, we retain null hypothesis and conclude that second term and third term results are not significantly different.
Nepali	81.3	82.2	80.13	85.6	0.446	<u>In third term, 50% of grade I students scored >85.6 in Nepali.</u> Since $p > \alpha$, we retain null hypothesis and conclude that second term and third term results are not significantly different.
Math	85.97	87.6	83.63	85.9	0.137	<u>In third term, 50% of grade I students scored >85.9 in Math.</u> Since $p > \alpha$, we retain null hypothesis and conclude that second term and third term results are not significantly different.
Science	77.47	78.8	76.3	77.00	0.391	<u>In third term, 50% of grade I students scored >77 in Science.</u> Since $p > \alpha$, we retain null hypothesis and conclude that second term and third term results are not significantly different
Social Studies	77.01	79.4	81.61	85.00	0.013	<u>In third term, 50% of grade I students scored >85 in Social Studies.</u> Since $p < \alpha$, we fail to retain null hypothesis and conclude that second term and third term results are significantly different.
Local Subject	85.72	85.8	84.9	86.4	0.475	<u>In third term, 50% of grade I students scored >86.4 in Local Subject.</u> Since $p > \alpha$, we retain null hypothesis and conclude that second term and third term results are not significantly different
Computer	84.45	83.5	92.97	96.00	0.000	<u>In third term, 50% of grade I students scored >96 in Computer.</u> Since $p < \alpha$, we fail to retain null hypothesis and conclude that second term and third term results are significantly different.
Sanskrit	48.06	40.5	74.37	76.00	0.000	<u>In third term, 50% of grade I students scored >76 in Sanskrit.</u> Since $p < \alpha$, we fail to retain null hypothesis and conclude that second term and third term results are significantly different.
Music	78.13	77.5	77.03	77.5	0.174	<u>In third term, 50% of grade I students scored >77.5 in Music.</u> Since $p > \alpha$, we retain null hypothesis and conclude that second term and third term results are not significantly different
Sports	91.51	43	94.24	95.00	0.000	<u>In third term, 50% of grade I students scored >95 in Sports.</u> Since $p < \alpha$, we fail to retain null hypothesis and conclude that second term and third term results are significantly different.

Yoga and Meditation	80.93	43	82.73	80.00	0.035	<u>In third term, 50% of grade I students scored >80 in Yoga and Meditation.</u> Since $p < \alpha$, we fail to retain null hypothesis and conclude that second term and third term results are significantly different.
Dance	77.61	43	78.13	80.00	0.672	<u>In third term, 50% of grade I students scored >80 in Dance.</u> Since $p > \alpha$, we retain null hypothesis and conclude that second term and third term results are not significantly different.
Arts	77.2	43	79.76	80.00	0.029	<u>In third term, 50% of grade I students scored >80 in Arts.</u> Since $p < \alpha$, we fail to retain null hypothesis and conclude that second term and third term results are significantly different.
Nepali Reading books	84.67	90	87.9	93.00	0.224	<u>In third term, 50% of grade I students scored >93 in Nepali Reading Book Tests.</u> Since $p > \alpha$, we retain null hypothesis and conclude that second term and third term results are not significantly different.
English Reading books	72.25	73	81.44	80.00	0.000	<u>In third term, 50% of grade I students scored >80 in English Reading Book Tests.</u> Since $p < \alpha$, we fail to retain null hypothesis and conclude that second term and third term results are significantly different.

In Term III

- Average marks **significantly increased in Social Studies, Computer, Sanskrit, Sports, Yoga and Meditation, Arts and English Reading Book tests** ($p < 0.05$).
- Increase or decrease in the rest of the subjects were not statistically significant in rest of the subjects ($p > 0.05$).

Grade II

The evaluation was based on 41 students (i.e. students who appeared in all subjects of the examination). The table below provides **Mean and Median** marks obtained by grade II students in different subjects, including performing arts and reading book tests. Furthermore, the marks obtained in second and third term evaluations are compared, and inference and conclusion are provided.

Subject	Term II		Term III		Inference	Conclusion
	Mean	Median	Mean	Median	p-value	
English	80.56	81.8	86.71	88.75	0.000	<u>In third term, 50% of grade II students scored ≥ 88.75 in English.</u> Since $p < \alpha$, we fail to retain null hypothesis and conclude that second term and third term results are significantly different.
Nepali	77.87	81.3	81.09	84.55	0.062	<u>In third term, 50% of grade II students scored ≥ 84.55 in Nepali.</u> Since $p > \alpha$, we retain null hypothesis and conclude that second term and third term results are not significantly different.
Math	65.95	61.4	73.14	71.8	0.000	<u>In third term, 50% of grade II students scored ≥ 71.8 in Math.</u> Since $p < \alpha$, we retain null hypothesis and conclude that second term and third term results are significantly different.
Science	80.4	80.2	82.06	82.6	0.145	<u>In third term, 50% of grade II students scored ≥ 82.6 in Science.</u> Since $p > \alpha$, we retain null hypothesis and conclude that second term and third term results are not significantly different.
Social Studies	75.59	76.4	76.94	74.95	0.43	<u>In third term, 50% of grade II students scored ≥ 74.95 in Social Studies.</u> Since $p > \alpha$, we retain null hypothesis and conclude that second term and third term results are not significantly different.
Local Subject	67.81	70.6	72.79	73.85	0.001	<u>In third term, 50% of grade II students scored ≥ 73.85 in Local Subject.</u> Since $p < \alpha$, we retain null hypothesis and conclude that second term and third term results are significantly different.
Computer	79.34	81.5	94.57	95.00	0.000	<u>In third term, 50% of grade II students scored ≥ 95 in Computer.</u> Since $p < \alpha$, we retain null hypothesis and conclude that second term and third term results are significantly different.
Sanskrit	41.8	44	78.47	78.00	0.000	<u>In third term, 50% of grade II students scored ≥ 78 in Sanskrit.</u> Since $p < \alpha$, we retain null hypothesis and conclude that second term and third term results are significantly different.
Music	80.93	80	78.31	78.75	0.152	<u>In third term, 50% of grade II students scored ≥ 78.75 in Music.</u> Since $p > \alpha$, we retain null hypothesis and conclude that second term and third term results are not significantly different.
Sports	93.17	92.5	95.25	95.00	0.000	<u>In third term, 50% of grade II students scored ≥ 95 in Sports.</u> Since $p < \alpha$, we retain null hypothesis and conclude that second term and third term results are significantly different.

Yoga and Meditation	81.79	85	79.34	78.75	0.019	<u>In third term, 50% of grade II students scored >78.75 in Yoga and Meditation.</u> Since $p < \alpha$, we fail to retain null hypothesis and conclude that second term and third term results are significantly different.
Dance	80.68	80	80.75	80.00	0.363	<u>In third term, 50% of grade II students scored >80 in Dance.</u> Since $p > \alpha$, we retain null hypothesis and conclude that second term and third term results are not significantly different.
Arts	73.65	72.5	80.5	82.5	0.000	<u>In third term, 50% of grade II students scored >82.5 in Arts.</u> Since $p < \alpha$, we fail to retain null hypothesis and conclude that second term and third term results are significantly different.
Nepali reading books	71.48	70	69.00	73.00	0.225	<u>In third term, 50% of grade II students scored >71.8 in Nepali Reading Book tests.</u> Since $p > \alpha$, we retain null hypothesis and conclude that second term and third term results are not significantly different.
English Reading books	73.65	77	91.1	93.00	0.000	<u>In third term, 50% of grade II students scored >93 in English Reading Book tests.</u> Since $p < \alpha$, we fail to retain null hypothesis and conclude that second term and third term results are significantly different.

In Term III

- Average marks **significantly increased in English, Nepali, Math, Local Subject, Computer, Sanskrit, Sports, Arts, and English Reading books** ($p < 0.05$).
- Average marks **significantly decreased in Yoga and Meditation** ($p < 0.05$).
- Increase or decrease in the rest of the subjects was not statistically significant ($p > 0.05$).

Grade III

The evaluation was based on 22 students (i.e. students who appeared in all subjects of the examination). The table below provides **Mean and Median** marks obtained by grade III students in different subjects, including performing arts and reading book tests. Furthermore, the marks obtained in first and second term examinations are compared, and inference and conclusion are provided.

Subject	Term II		Term III		Inference	Conclusion
	Mean	Median	Mean	Median	p-value	
English	67.19	70.75	79.21	82.15	0.000	<u>In third term, 50% of grade III students scored >82.15 in English.</u> Since $p < \alpha$, we fail to retain null hypothesis and conclude that second term and third term results are significantly different.
Nepali	81.71	83.1	86.97	90.05	0.001	<u>In third term, 50% of grade III students scored >90.05 in Nepali.</u> Since $p < \alpha$, we fail to retain null hypothesis and conclude that second term and third term results are significantly different.
Math	66.36	66.2	72.25	70.55	0.001	<u>In third term, 50% of grade III students scored >70.55 in Math.</u> Since $p < \alpha$, we fail to retain null hypothesis and conclude that second term and third term results are significantly different.
Science	74.93	79.45	79.71	81.9	0.003	<u>In third term, 50% of grade X students scored >81.9 in Science.</u> Since $p < \alpha$, we fail to accept null hypothesis and conclude that second term and third term results are significantly different.
Social Studies	68.09	68.55	74.24	76.8	0.000	<u>In third term, 50% of grade III students scored >76.8 in Social Studies.</u> Since $p < \alpha$, we fail to retain null hypothesis and conclude that second term and third term results are significantly different.
Local Subject	72.44	72.35	72.95	69.65	0.685	<u>In third term, 50% of grade III students scored >69.65 in Local Subject.</u> Since $p > \alpha$, we retain null hypothesis and conclude that second term and third term results are not significantly different.
Computer	82.69	83.26	94.86	95.00	0.000	<u>In third term, 50% of grade III students scored >95 in Computer.</u> Since $p < \alpha$, we fail to retain null hypothesis and conclude that second term and third term results are significantly different.
Sanskrit	43.31	44.5	68.09	68.00	0.000	<u>In third term, 50% of grade III students scored >68 in Sanskrit.</u> Since $p < \alpha$, we fail to retain null hypothesis and conclude that second term and third term results are significantly different.
Music	81.13	80	77.95	78.75	0.000	<u>In third term, 50% of grade III students scored >78.75 in Music.</u> Since $p < \alpha$, we fail to retain null hypothesis and conclude that second term and third term results are significantly different.
Sports	78.97	80	80.79	80.00	0.137	<u>In third term, 50% of grade III students scored >80 in Sports.</u> Since $p > \alpha$, we retain null hypothesis and conclude that second term and third term results are not significantly different.

Yoga and Meditation	75.68	77.5	81.13	81.25	0.002	<u>In third term, 50% of grade III students scored >81.25 in Yoga and Meditation. Since $p < \alpha$, we fail to retain null hypothesis and conclude that second term and third term results are significantly different.</u>
Dance	81.13	80	81.13	80.00	1.00	<u>In third term, 50% of grade III students scored >80 in Dance. Since $p > \alpha$, we retain null hypothesis and conclude that second term and third term results are not significantly different.</u>
Arts	97.5	85	78.4	80.00	0.325	<u>In third term, 50% of grade III students scored >80 in Nepali Reading Book tests. Since $p > \alpha$, we retain null hypothesis and conclude that second term and third term results are not significantly different.</u>
Nepali Reading Books	66.04	65	72.54	73.00	0.16	<u>In third term, 50% of grade III students scored >73 in Nepali Reading Book tests. Since $p > \alpha$, we retain null hypothesis and conclude that second term and third term results are not significantly different.</u>
English Reading Books	47.59	46.5	52.54	50.5	0.08	<u>In third term, 50% of grade III students scored >50.5 in English Reading Book tests. Since $p > \alpha$, we retain null hypothesis and conclude that second term and third term results are not significantly different.</u>

In Term III

- Average marks **significantly increased in English, Nepali, Math, Science, Social Studies, Computer, Sanskrit and Yoga and Meditation** ($p < 0.05$).
- Average marks **significantly decreased in Music** ($p < 0.05$).
- Increase or decrease in rest of the subjects was not statistically significant.

Grade IV

The evaluation was based on 20 students (i.e. students who appeared in all subjects of the examination). The table below provides **Mean and Median** marks obtained by grade IV students in different subjects, including performing arts and reading book tests. Furthermore, the marks obtained in first and second term examinations are compared, and inference and conclusion are provided.

Subject	Term II		Term III		Inference	Conclusion
	Mean	Median	Mean	Median	p-value	
English	57.85	53.2	62.77	58.2	0.000	<u>In third term, 50% of grade IV students scored >83.2 in English.</u> Since $p < \alpha$, we fail to accept null hypothesis and conclude that second term and third term results are significantly different.
Nepali	74.49	74	81.33	82.75	0.000	<u>In third term, 50% of grade IV students scored >82.75 in Nepali.</u> Since $p < \alpha$, we fail to accept null hypothesis and conclude that second term and third term results are significantly different.
Math	66.31	68.45	64.9	64.25	0.476	<u>In third term, 50% of grade IV students scored >64.25 in Math.</u> Since $p > \alpha$, we accept null hypothesis and conclude that second term and third term results are not significantly different.
Science	71.47	70.2	75.58	73.00	0.005	<u>In third term, 50% of grade IV students scored >73 in Science.</u> Since $p < \alpha$, we fail to accept null hypothesis and conclude that second term and third term results are significantly different.
Social Studies	77.29	78.35	79.07	77.05	0.244	<u>In third term, 50% of grade IV students scored >77.05 in Social.</u> Since $p > \alpha$, we accept null hypothesis and conclude that second term and third term results are not significantly different.
Chinese	43.18	42.7	45.09	40.2	0.176	<u>In third term, 50% of grade IV students scored >40.02 in Chinese.</u> Since $p > \alpha$, we accept null hypothesis and conclude that second term and third term results are not significantly different.
Computer	74.87	73.8	86.65	86.7	0.000	<u>In third term, 50% of grade IV students scored >86.7 in Computer.</u> Since $p < \alpha$, we fail to accept null hypothesis and conclude that second term and third term results are significantly different.
Sanskrit	88.8	67.95	61.82	63.6	0.19	<u>In third term, 50% of grade IV students scored >40.02 in Sanskrit.</u> Since $p > \alpha$, we accept null hypothesis and conclude that second term and third term results are not significantly different.
Music	82.62	82.5	79.75	80.00	0.001	<u>In third term, 50% of grade IV students scored >80 in Music.</u> Since $p < \alpha$, we fail to accept null hypothesis and conclude that second term and third term results are significantly different.
Sports	79	77.5	81.62	80.00	0.536	<u>In third term, 50% of grade IV students scored >80 in Sports.</u> Since $p > \alpha$, we accept null hypothesis and conclude that second term and third term results are not significantly different.
Dance	82.5	82.5	83.37	80.00	0.022	<u>In third term, 50% of grade IV students scored</u>

						>80 in Dance. Since $p < \alpha$, we fail to accept null hypothesis and conclude that second term and third term results are significantly different.
Arts	76.12	70	74.00	73.75	0.000	<u>In third term, 50% of grade IV students scored >80 in Arts.</u> Since $p < \alpha$, we fail to accept null hypothesis and conclude that second term and third term results are significantly different.
Nepali Reading Books	54.85	53	83.15	83.00	0.000	<u>In third term, 50% of grade IV students scored >80 in Nepali Reading Book tests.</u> Since $p < \alpha$, we fail to accept null hypothesis and conclude that second term and third term results are significantly different.
English Reading Books	58.55	62.5	57.9	55.00	0.392	<u>In third term, 50% of grade IV students scored >80 in English Reading Book test.</u> Since $p > \alpha$, we accept null hypothesis and conclude that second term and third term results are not significantly different.

In Term III

- Average marks **significantly increased in English, Nepali, Science, Computer, Dance, Nepali Reading Book tests** ($p < 0.05$).
- Average marks **significantly decreased in Music and Arts** ($p < 0.05$).
- Increase or decrease in average marks in rest of the subjects were not statistically significant ($p > 0.05$).

Grade V

The evaluation was based on 25 students (i.e. students who appeared in all subjects of the examination). The table below provides **Mean and Median** marks obtained by grade V students in different subjects, including performing arts and reading book tests. Furthermore, the marks obtained in first and second term examinations are compared, and inference and conclusion are provided.

Subject	Term II		Term III		Inference	Conclusion
	Mean	Median	Mean	Median	p-value	
English	62.42	59.1	61.91	63.00	0.832	<u>In third term, 50% of grade V students scored ≥ 63 in English.</u> Since $p > \alpha$, we accept null hypothesis and conclude that second term and third term results are not significantly different.
Nepali	62.05	68.3	64.54	66.2	0.642	<u>In third term, 50% of grade V students scored ≥ 66.2 in Nepali.</u> Since $p > \alpha$, we accept null hypothesis and conclude that second term and third term results are not significantly different.
Math	42.94	40.5	55.48	54.9	0.000	<u>In third term, 50% of grade V students scored ≥ 54.9 in Math.</u> Since $p < \alpha$, we fail to accept null hypothesis and conclude that second term and third term results are significantly different.
Science	60.71	62.4	67.95	68.8	0.000	<u>In third term, 50% of grade V students scored ≥ 68.8 in Science.</u> Since $p < \alpha$, we fail to accept null hypothesis and conclude that second term and third term results are significantly different.
Social Studies	79.18	80.2	75.83	77.3	0.006	<u>In third term, 50% of grade V students scored ≥ 77.3 in Social Studies.</u> Since $p < \alpha$, we fail to accept null hypothesis and conclude that second term and third term results are significantly different.
Chinese	48.4	44	43.64	45.2	0.073	<u>In third term, 50% of grade V students scored ≥ 63 in Chinese.</u> Since $p > \alpha$, we accept null hypothesis and conclude that second term and third term results are not significantly different.
Computer	71.51	71.1	85.47	86.4	0.000	<u>In third term, 50% of grade V students scored ≥ 86.4 in Computer.</u> Since $p < \alpha$, we fail to accept null hypothesis and conclude that second term and third term results are significantly different.
Sanskrit	55.1	53.7	58.12	58.00	0.000	<u>In third term, 50% of grade V students scored ≥ 58 in Sanskrit.</u> Since $p < \alpha$, we fail to accept null hypothesis and conclude that second term and third term results are significantly different.
Music	82.8	80	79.7	80.00	0.000	<u>In third term, 50% of grade V students scored ≥ 80 in Music.</u> Since $p < \alpha$, we fail to accept null hypothesis and conclude that second term and third term results are significantly different.
Sports	82.3	82.5	81.2	80.00	0.319	<u>In third term, 50% of grade V students scored ≥ 80 in Sports.</u> Since $p > \alpha$, we accept null hypothesis and conclude that second term and third term results are not significantly different.
Dance	80.00	80	82.1	80.00	0.627	<u>In third term, 50% of grade V students scored</u>

						<u>>80 in Dance</u> . Since $p > \alpha$, we accept null hypothesis and conclude that second term and third term results are not significantly different.
Arts	74.9	70	74.5	75.00	0.816	<u>In third term, 50% of grade V students scored >75 in Arts</u> . Since $p > \alpha$, we accept null hypothesis and conclude that second term and third term results are not significantly different.
Nepali Reading Books	39.88	40	68.00	70.00	0.000	<u>In third term, 50% of grade V students scored >70 in Nepali Reading Book tests</u> . Since $p < \alpha$, we fail to accept null hypothesis and conclude that second term and third term results are significantly different.
English Reading Books	32.96	33	56.56	60.00	0.000	<u>In third term, 50% of grade V students scored >60 in English Reading Book tests</u> . Since $p < \alpha$, we fail to accept null hypothesis and conclude that second term and third term results are significantly different.

In Term III

- Average marks **significantly increased in Math, Science, Computer, Sanskrit, Nepali Reading Book tests and English Reading Book tests** ($p < 0.05$).
- Average marks **significantly decreased in Social Studies and Music** ($p < 0.05$).
- Increase or decrease in average marks was not statistically significant in the rest of the subjects ($p > 0.05$).

Grade VI

The evaluation was based on 25 students (i.e. students who appeared in all subjects of the examination). The table below provides **Mean and Median** marks obtained by grade VI students in different subjects, including performing arts and reading book tests. Furthermore, the marks obtained in first and second term examinations are compared, and inference and conclusion are provided.

Subject	Term II		Term III		Inference	Conclusion
	Mean	Median	Mean	Median	p-value	
English	59.88	61.6	62.33	64.7	0.059	<u>In third term, 50% of grade VI students scored >64.7 in English.</u> Since $p > \alpha$, we accept null hypothesis and conclude that second term and third term results are not significantly different.
Nepali	61.32	63.8	60.95	68.5	0.811	<u>In third term, 50% of grade VI students scored >68.5 in Nepali.</u> Since $p > \alpha$, we accept null hypothesis and conclude that second term and third term results are not significantly different.
Math	56.2	56.4	60.34	68.3	0.07	<u>In third term, 50% of grade VI students scored >68.3 in Math.</u> Since $p > \alpha$, we accept null hypothesis and conclude that second term and third term results are not significantly different.
Science	67.54	68.5	66.73	68.4	0.649	<u>In third term, 50% of grade VI students scored >68.4 in Science.</u> Since $p > \alpha$, we accept null hypothesis and conclude that second term and third term results are not significantly different.
OBTE	70.51	74.7	69.66	69.66	0.684	<u>In third term, 50% of grade VI students scored >69.66 in OBTE.</u> Since $p > \alpha$, we accept null hypothesis and conclude that second term and third term results are not significantly different.
HPE	71.87	74.7	67.42	71.9	0.235	<u>In third term, 50% of grade VI students scored >71.9 in HPE.</u> Since $p > \alpha$, we accept null hypothesis and conclude that second term and third term results are not significantly different.
Moral	61.99	65.7	73.58	80.4	0.019	<u>In third term, 50% of grade VI students scored >80.4 in Moral.</u> Since $p < \alpha$, we fail to accept null hypothesis and conclude that second term and third term results are significantly different.
Social	67.42	65.1	69.78	76.5	0.195	<u>In third term, 50% of grade VI students scored >76.5 in Social.</u> Since $p > \alpha$, we accept null hypothesis and conclude that second term and third term results are not significantly different.
Computer	74.75	74	84.36	85.2	0.000	<u>In third term, 50% of grade V students scored >85.2 in Computer.</u> Since $p < \alpha$, we

						fail to accept null hypothesis and conclude that second term and third term results are significantly different
Sanskrit	56.86	55.8	56.7	57.7	0.936	<u>In third term, 50% of grade VI students scored >57.7 in Sanskrit.</u> Since $p > \alpha$, we accept null hypothesis and conclude that second term and third term results are not significantly different
Chinese	46.4	44	44.01	41.9	0.11	<u>In third term, 50% of grade VI students scored >41.9 in Chinese.</u> Since $p > \alpha$, we accept null hypothesis and conclude that second term and third term results are not significantly different
Performing arts	74.8	75	80.1	80.00	0.149	<u>In third term, 50% of grade VI students scored >80 in Performing arts.</u> Since $p > \alpha$, we accept null hypothesis and conclude that second term and third term results are not significantly different
Nepali Reading Books	40.72	43	52.32	57.00	0.001	<u>In third term, 50% of grade V students scored >57 in Nepali Reading Book tests.</u> Since $p < \alpha$, we fail to accept null hypothesis and conclude that second term and third term results are significantly different
Reading English	48.64	50	59.08	60.00	0.003	<u>In third term, 50% of grade V students scored >60 in English Reading Book tests.</u> Since $p < \alpha$, we fail to accept null hypothesis and conclude that second term and third term results are significantly different.

In Term III

- Average marks **significantly increased in Moral, Computer, Nepali Reading Book tests and English Reading Book tests** ($p < 0.05$)
- Increase or decrease in average marks in rest of the subjects was not statistically significant ($p > 0.05$).

Grade VII

The evaluation was based on 19 students (i.e. students who appeared in all subjects of the examination). The table below provides **Mean and Median** marks obtained by grade VII students in different subjects, including performing arts and reading book tests. Furthermore, the marks obtained in first and second term examinations are compared, and inference and conclusion are provided.

Subject	Term II		Term III		Inference	Conclusion
	Mean	Median	Mean	Median	p-value	
English	58.56	57.3	59.37	57.5	0.457	<u>In third term, 50% of grade VII students scored ≥ 57.5 in English.</u> Since $p > \alpha$, we accept null hypothesis and conclude that second and third term results are not significantly different.
Nepali	64.6	69.7	70.86	75.3	0.000	<u>In third term, 50% of grade VII students scored ≥ 75.3 in Nepali.</u> Since $p < \alpha$, we fail to accept null hypothesis and conclude that second and third term results are significantly different.
Math	60.53	61.5	64.51	64.7	0.059	<u>In third term, 50% of grade VII students scored ≥ 64.7 in Math.</u> Since $p > \alpha$, we accept null hypothesis and conclude that second and third term results are not significantly different.
Science	58.48	55.9	68.09	63.8	0.000	<u>In third term, 50% of grade VII students scored ≥ 63.8 in Science.</u> Since $p < \alpha$, we fail to accept null hypothesis and conclude that second and third term results are significantly different.
OBTE	64.42	66	74.00	73.8	0.000	<u>In third term, 50% of grade VII students scored ≥ 73.8 in OBTE.</u> Since $p < \alpha$, we fail to accept null hypothesis and conclude that second and third term results are significantly different.
HPE	76.13	81.2	80.3	72.00	0.886	<u>In third term, 50% of grade VII students scored ≥ 72 in HPE.</u> Since $p > \alpha$, we accept null hypothesis and conclude that second term and third term results are not significantly different.
Moral	68.68	68.3	76.31	80.3	0.458	<u>In third term, 50% of grade VII students scored ≥ 80.3 in Moral.</u> Since $p > \alpha$, we accept null hypothesis and conclude that second term and third term results are not significantly different.
Social Studies	71.68	72.4	69.6	68.3	0.031	<u>In third term, 50% of grade VII students scored ≥ 68.3 in Social Studies.</u> Since $p < \alpha$, we fail to accept null hypothesis and conclude that second and third term results are significantly different
Computer	76.19	77.8	79.26	80.7	0.003	<u>In third term, 50% of grade VII students scored ≥ 80.7 in Computer.</u> Since $p < \alpha$, we fail to accept null hypothesis and conclude that second and third term results are significantly different
Sanskrit	60.98	61.2	60.27	58.8	0.691	<u>In third term, 50% of grade VII students scored ≥ 58.8 in Sanskrit.</u> Since $p > \alpha$, we accept null

						hypothesis and conclude that second term and third term results are not significantly different.
Chinese	41.56	32.9	41.62	32.4	0.971	<u>In third term, 50% of grade VII students scored ≥ 32.4 in Chinese.</u> Since $p > \alpha$, we accept null hypothesis and conclude that second term and third term results are not significantly different.
Performing Arts	74.8	75	77.89	80.00	0.774	<u>In third term, 50% of grade VII students scored > 80 in performing arts.</u> Since $p > \alpha$, we accept null hypothesis and conclude that second term and third term results are not significantly different.
Nepali Reading Books	40.72	43	64.15	67.00	0.063	<u>In third term, 50% of grade VII students scored ≥ 67 in Reading Books Nepali tests.</u> Since $p > \alpha$, we accept null hypothesis and conclude that second term and third term results are not significantly different.
English Reading Books	48.64	50	44.84	45.00	0.792	<u>In third term, 50% of grade VII students scored > 45 in Reading Books English tests.</u> Since $p > \alpha$, we accept null hypothesis and conclude that second term and third term results are not significantly different.

In Term III

- Average marks **significantly increased in Nepali, Science, OBTE, and Computer** ($p < 0.05$)
- Average marks **significantly decreased in Social Studies** ($p < 0.05$).
- Increase or decrease in average marks in rest of the subjects was not statistically significant ($p > 0.05$).

Grade IX

The evaluation was based on 22 students (i.e. students who appeared in all subjects of the examination). The table below provides **Mean and Median** marks obtained by grade IX students in different subjects, including performing arts and reading book tests. Furthermore, the marks obtained in first and second term examinations are compared, and inference and conclusion are provided.

Subject	Term II		Term III		Inference	Conclusion
	Mean	Median	Mean	Median	p-value	
English	62.42	62	60.00	57.95	0.257	<u>In third term, 50% of grade IX students scored >57.95 in English.</u> Since $p > \alpha$, we accept null hypothesis and conclude that second term and third term results are not significantly different.
Nepali	62.05	63.35	64.14	67.5	0.378	<u>In third term, 50% of grade IX students scored >67.5 in Nepali.</u> Since $p > \alpha$, we accept null hypothesis and conclude that second term and third term results are not significantly different.
C. Math	46.37	41.6	67.5	40.75	0.423	<u>In third term, 50% of grade IX students scored >40.75 in C. math.</u> Since $p > \alpha$, we accept null hypothesis and conclude that second term and third term results are not significantly different.
Add. Math	52.99	45.9	61.77	61.8	0.008	<u>In third term, 50% of grade IX students scored >61.8 in Add. math.</u> Since $p < \alpha$, we fail to accept null hypothesis and conclude that second term and third term results are significantly different.
Science	60.76	59.8	72.75	71.85	0.000	<u>In third term, 50% of grade IX students scored >71.85 in Science.</u> Since $p < \alpha$, we fail to accept null hypothesis and conclude that second term and third term results are significantly different.
Social Studies	58.12	62.65	68.72	72.7	0.000	<u>In third term, 50% of grade IX students scored >72.7 in Social.</u> Since $p < \alpha$, we fail to accept null hypothesis and conclude that second term and third term results are significantly different.
HPE	67.64	68.05	70.59	70.95	0.381	<u>In third term, 50% of grade IX students scored >70.95 in HPE.</u> Since $p > \alpha$, we accept null hypothesis and conclude that second term and third term results are not significantly different.
Computer	66.88	67.7	74.11	76.2	0.003	<u>In third term, 50% of grade IX students scored >76.2 in Computer.</u> Since $p < \alpha$, we fail to accept null hypothesis and conclude that second term and third term results are significantly different.
Performing	82.61	80.00	79.54	80.00	0.4	<u>In third term, 50% of grade IX students</u>

Arts						scored >80 in Performing Arts. Since $p > \alpha$, we accept null hypothesis and conclude that second term and third term results are not significantly different.
Nepali Reading Books	61.77	63.00	59.09	60.00	0.477	In third term, 50% of grade IX students scored >60 in Nepali Reading Book tests. Since $p > \alpha$, we accept null hypothesis and conclude that second term and third term results are not significantly different.
English Reading Books	39.27	37.5	48.86	45.00	0.027	In third term, 50% of grade IX students scored >45 in English Reading book tests. Since $p > \alpha$, we accept null hypothesis and conclude that second term and third term results are not significantly different.

In Term III

- Average marks **significantly increased in Additional Math, Science, Social Studies, Computer, English Reading Books tests** ($p < 0.05$).
- Increase or decrease in average marks in rest of the subjects was not statistically significant ($p > 0.05$).

Overall Results

In overall analysis, mean and median were calculated based on the marks obtained (all subjects combined including performing arts and reading book tests) in a grade by 'all' students. Furthermore, the marks obtained in second and third term evaluations are compared, and inference and conclusion are provided. The data will provide the overall impression of results in each grade.

Grade	Term II		Term III		Inference p-value	Conclusion
	Mean	Median	Mean	Median		
I	79.25	91.5	82.85	84.35	0.000	<u>In third term, in all subjects combined, 50% of grade I students scored >84.35. Since $p < \alpha$, we fail to retain null hypothesis and conclude that second term and third term results are significantly different.</u>
II	75.6	78.00	81.32	82.5	0.000	<u>In third term, in all subjects combined, 50% of grade II students scored >82.5. Since $p < \alpha$, we fail to retain null hypothesis and conclude that second term and third term results are significantly different.</u>
III	71.19	76.2	76.85	80.00	0.000	<u>In third term, in all subjects combined, 50% of grade III students scored >80. Since $p < \alpha$, we fail to retain null hypothesis and conclude that second term and third term results are significantly different.</u>
IV	68.91	72.5	72.54	77.3	0.000	<u>In third term, in all subjects combined, 50% of grade IV students scored >77.3. Since $p < \alpha$, we fail to retain null hypothesis and conclude that second term and third term results are significantly different.</u>
V	62.9	67.5	68.21	70.15	0.000	<u>In third term, in all subjects combined, 50% of grade V students scored >70.15. Since $p < \alpha$, we fail to retain null hypothesis and conclude that second term and third term results are significantly different.</u>
VI	61.35	64.4	64.81	67.85	0.000	<u>In third term, in all subjects combined, 50% of grade VI students scored >67.85. Since $p < \alpha$, we fail to retain null hypothesis and conclude that second term and third term results are significantly different.</u>
VII	62.95	65.4	66.26	69.45	0.000	<u>In third term, in all subjects combined, 50% of grade VII students scored >69.45. Since $p < \alpha$, we fail to retain null hypothesis and conclude that second term and third term results are significantly different.</u>
IX	60.08	61.95	64.69	66.6	0.000	<u>In third term, in all subjects combined, 50% of grade IX students scored >66.6. Since $p < \alpha$, we fail to retain null hypothesis and conclude that second term and third term results are significantly different.</u>

Report Card Distribution

Parents were invited to receive the report card in three different days. Result distribution for grade I to III was on April 8; for grade IV, V and VI on April 9; and for VII and IX on April 10.

Appendix

Examination Team

Tasks	Name
Examination Committee Coordinator	Arjun Khatiwada
Question Prep./Examination/Copy Checking/Marks Entry	Subject Teachers
Online Handbook Prep.	Suraj Gautam/Arjun Khatiwada
Mark Sheet Ledger Prep.	Arjun Khatiwada
Mark Sheet Prep./Distribution	Class Teachers/ HOS/ Principal
Evaluation Report by	Vice Principal