

1.0 INTRODUCTION

1.1 GENERAL INFORMATION ON THE KENYA NATIONAL EXAMINATIONS COUNCIL

The Kenya National Examinations Council (KNEC) is a state corporation established through an Act of Parliament (CAP 225A, Laws of Kenya - repealed in 2012 with KNEC Act No. 29 of 2012) to conduct school and post-school examinations within Kenya as it may consider desirable in the public interest and to award certificates or diplomas to successful candidates in such examinations.

1.1.1 THE COUNCIL VISION: *To be a world class organization in assessment for quality education.*

1.1.2 THE COUNCIL MISSION: *To objectively assess learning achievements in order to safeguard and enhance globally acceptable educational certification standards.*

1.2 THE FUNCTIONS OF THE COUNCIL

- 1.2.1 Set and maintain examination standards;
- 1.2.2 Develop national examination tests;
- 1.2.3 Register candidates for the KNEC examinations;
- 1.2.4 Conduct examinations, process them and release results;
- 1.2.5 Award certificates and diploma to successful candidates;
- 1.2.6 Issue replacement certificates and diplomas;
- 1.2.7 Conduct educational assessment research;
- 1.2.8 Carry out equation of certificates and diplomas issued by other recognized examining boards;
- 1.2.9 Conduct examinations on behalf of foreign examination boards.

1.3 CORE VALUES

In its operations, the Council is guided by the following values:

- 1.3.1 Respect to rule of law as stipulated in the Constitution; the KNEC Act No. 29 of 2012; Basic Education Act No. 27 of 2012 and other laws of the land;
- 1.3.2 Responsiveness to national and sectoral policies;

- 1.3.3 Strict adherence to examination regulations in the conduct of examinations;
- 1.3.4 Maintenance of high level of efficiency, integrity and honesty by all Council employees and contracted professionals involved in the conduct of examinations;
- 1.3.5 Conducting examinations that are relevant, fair, valid and reliable;
- 1.3.6 Responsiveness to public needs in service delivery.

1.4 THE STRATEGIC OBJECTIVES OF THE COUNCIL:

- 1.4.1 To develop and administer examinations annually for Kenya Certificate of Primary Education (KCPE), Kenya Certificate of Secondary Education (KCSE) and Post-School examinations and to ensure that these examinations are free from *bias* and are *valid, reliable, relevant, efficient* and of globally *accepted standards*.
- 1.4.2 To conduct examinations, publish the results and issue certificates of these examinations.

To achieve its Mandate, Vision, Mission and Strategic Objectives, the Council:- *develops, prints, distributes, administers, marks, processes examinations* and awards *certificates* to successful candidates in the following examinations:-

1.4.2.1 SCHOOL EXAMINATIONS:

- 1.4.2.1.1 Kenya Certificate of Primary Education (KCPE)
- 1.4.2.1.1 Kenya Certificate of Secondary Education (KCSE)

1.4.2.2 POST-SCHOOL EXAMINATIONS:

- 1.4.2.2.1 Primary Teachers Education (PTE)
- 1.4.2.2.2 Teacher Certificate in Adult Education (TCAE)
- 1.4.2.2.3 Early Childhood Development and Education (ECDE)
- 1.4.2.2.4 Diploma in Teacher Education (DTE)
- 1.4.2.2.5 Special Needs Education (SNE)
- 1.4.2.2.6 Business Examinations
- 1.4.2.2.7 Technical Examinations

2.0 GENERAL INFORMATION ON THE YEAR 2014 KCPE EXAMINATION

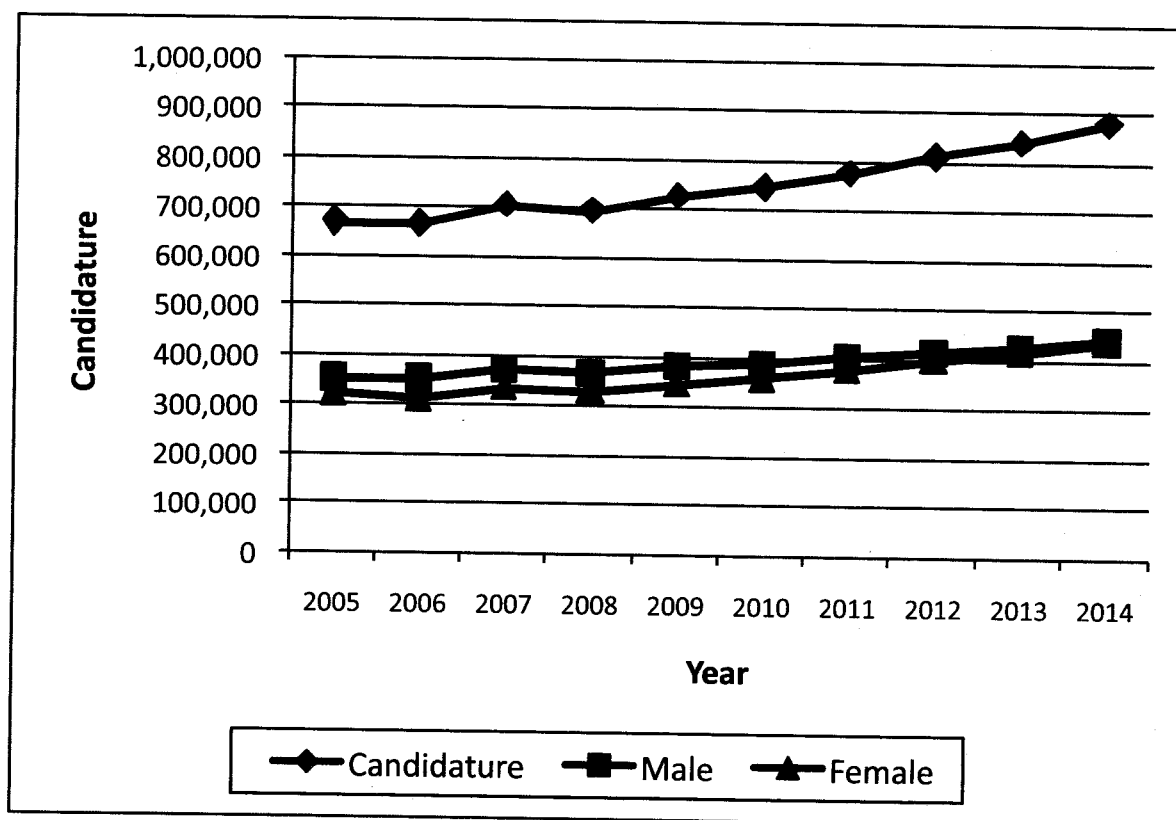
2.1 KCPE EXAMINATION CANDIDATURE

In 2014, the candidates who registered for the KCPE examination were **880,486** compared to 839,759 candidates registered in 2013. This represents an increase of **40,727 (4.85%)** candidates. The KCPE Examination candidature for the last ten years is as shown in **Table 1**.

Table 1: KCPE Examination Candidature Trends for the Last 10 Years

Year	Total Candidates	Change from Previous Year	Male Candidates	Female Candidates	Male Change	Female Change
2014	880,486	40,727 (4.85%)	443,258 (50.34%)	16,889 (3.96%)	437,228 (49.66%)	23,838 (5.77%)
2013	839,759	27,829 (3.43%)	426,369 (50.77%)	10,749 (2.59%)	413,390 (49.23%)	17,080 (4.31%)
2012	811,930	35,716 (4.60%)	415,620 (51.19%)	14,806 (3.69%)	396,310 (48.81%)	20,910 (5.57%)
2011	776,214	30,134 (4.04%)	400,814 (51.64%)	12,593 (3.24%)	375,400 (48.36%)	17,541 (4.90%)
2010	746,080	19,026 (2.62%)	388,221 (52.03%)	6,621 (1.74%)	357,859 (47.97%)	12,405 (3.59%)
2009	727,054	31,277 (4.50%)	381,600 (52.49%)	14,475 (3.94%)	345,454 (47.51%)	16,802 (5.11%)
2008	695,777	-9,141 (-1.30%)	367,125 (52.76%)	-5,140 (-1.38%)	328,652 (47.24%)	-4,001 (-1.20%)
2007	704,918	38,467 (5.77%)	372,265 (52.81%)	19,483 (5.52%)	332,653 (47.19%)	18,984 (6.05%)
2006	666,451	-5,099 (-0.76%)	352,782 (52.93%)	-44 (-0.01%)	313,669 (47.07%)	-5,055 (-1.59%)
2005	671,550	13,803 (2.10%)	352,826 (52.54%)	9,847 (2.87%)	318,724 (47.46%)	3,956 (1.26%)

Graph 1: KCPE Examination Candidature Trends for the Last 10 Years



Observations from Table 1 and Graph 1

- 2.1.1 Candidature increased by **40,727 (4.85%)** to **880,486** in 2014 KCPE examination compared to **839,759** candidates registered in 2013.
- 2.1.2 Female candidates increased by **23,838 (5.77%)** while male candidates increased by **16,889 (3.96%)** respectively.
- 2.1.3 For the last ten years, there have been more **male** than **female** candidates registering for the KCPE examination.

Table 2: 2014 & 2013 KCPE Examination Candidature by County

County Code & Name	2014			AB (%)	2013			AB (%)
	Total (%)	Male (%)	Female (%)		Total (%)	Male (%)	Female (%)	
01 Taita Taveta	8,305 (0.94%)	4,150 (49.97%)	4,155 (50.03%)	78 (0.91%)	8,243 (0.98%)	4,227 (51.28%)	4,016 (48.72%)	37 (0.77%)
02 Kwale	15,224 (1.73%)	7,852 (51.58%)	7,372 (48.42%)	80 (0.93%)	14,664 (1.75%)	7,837 (53.44%)	6,827 (46.56%)	39 (0.81%)
03 Mombasa	16,028 (1.82%)	8,139 (50.78%)	7,889 (49.22%)	163 (1.90%)	15,569 (1.85%)	7,820 (50.23%)	7,749 (9.77%)	126 (2.62%)
04 Kilifi	28,645 (3.25%)	14,755 (51.51%)	13,890 (48.49%)	455 (5.29%)	26,909 (3.20%)	14,148 (52.58%)	12,761 (47.42%)	165 (3.43%)
05 Tana River	3,774 (0.43%)	2,074 (54.95%)	1,700 (45.05%)	65 (0.76%)	3,567 (0.42%)	2,027 (56.83%)	1,540 (43.17%)	11 (0.23%)
06 Lamu	2,454 (0.28%)	1,258 (51.26%)	1,196 (48.74%)	33 (0.38%)	2,361 (0.28%)	1,257 (53.24%)	1,104 (46.76%)	10 (0.21%)
07 Nyandarua	18,689 (2.12%)	9,233 (49.40%)	9,456 (50.60%)	328 (3.82%)	18,194 (2.17%)	8,846 (48.62%)	9,348 (51.38%)	209 (4.35%)
08 Nyeri	18,867 (2.14%)	9,513 (50.42%)	9,354 (49.58%)	87 (1.01%)	19,047 (2.27%)	9,513 (49.94%)	9,534 (50.06%)	83 (1.73%)
09 Kirinyaga	12,305 (1.40%)	6,008 (48.83%)	6,297 (51.17%)	210 (2.44%)	11,897 (1.42%)	5,932 (49.86%)	5,965 (50.14%)	114 (2.37%)
10 Murang'a	23,640 (2.68%)	11,884 (50.27%)	11,756 (49.73%)	226 (2.63%)	25,113 (2.99%)	12,586 (50.12%)	12,527 (49.88%)	156 (3.24%)
11 Kiambu	38,373 (4.36%)	19,083 (49.73%)	19,290 (50.27%)	358 (4.16%)	37,721 (4.49%)	18,708 (49.60%)	19,013 (50.40%)	180 (3.74%)
12 Machakos	30,936 (3.51%)	15,280 (49.39%)	15,656 (50.61%)	213 (2.48%)	30,311 (3.61%)	14,961 (49.36%)	15,350 (50.64%)	87 (1.81%)
13 Kitui	33,831 (3.84%)	16,562 (48.96%)	17,269 (51.04%)	310 (3.61%)	31,893 (3.80%)	15,859 (49.73%)	16,034 (50.27%)	107 (2.22%)
14 Embu	13,190 (1.50%)	6,337 (48.04%)	6,853 (51.96%)	78 (0.91%)	13,022 (1.55%)	6,109 (46.91%)	6,913 (53.09%)	40 (0.83%)
15 Meru	27,605 (3.14%)	12,740 (46.15%)	14,865 (53.85%)	378 (4.40%)	26,976 (3.21%)	12,438 (46.11%)	14,538 (53.89%)	225 (4.68%)
16 Marsabit	3,492 (0.40%)	1,972 (56.47%)	1,520 (43.53%)	51 (0.59%)	3,535 (0.42%)	1,994 (56.41%)	1,541 (43.59%)	29 (0.60%)
17 Isiolo	2,783 (0.32%)	1,454 (52.25%)	1,329 (47.75%)	24 (0.28%)	2,649 (0.32%)	1,459 (55.08%)	1,190 (44.92%)	16 (0.33%)
18 Makueni	28,719 (3.26%)	13,983 (48.69%)	14,736 (51.31%)	165 (1.92%)	27,618 (3.29%)	13,479 (48.81%)	14,139 (51.19%)	81 (1.68%)
19 Tharaka Nithi	9,204 (1.05%)	4,471 (48.58%)	4,733 (51.42%)	83 (0.97%)	8,668 (1.03%)	4,213 (48.60%)	4,455 (51.40%)	32 (0.67%)
20 Nairobi	48,383 (5.50%)	23,440 (48.45%)	24,943 (51.55%)	752 (8.75%)	46,131 (5.49%)	22,282 (48.30%)	23,849 (51.70%)	102 (2.12%)
21 Turkana	7,224 (0.82%)	4,462 (61.77%)	2,762 (38.23%)	131 (1.52%)	6,304 (0.75%)	3,949 (62.64%)	2,355 (37.36%)	181 (3.76%)
22 Samburu	3,251 (0.37%)	1,929 (59.34%)	1,322 (40.66%)	39 (0.45%)	3,144 (0.37%)	1,911 (60.78%)	1,233 (39.22%)	40 (0.83%)
23 Trans Nzoia	20,293 (2.30%)	9,800 (48.29%)	10,493 (51.71%)	154 (1.79%)	18,897 (2.25%)	9,375 (49.61%)	9,522 (50.39%)	140 (2.91%)
24 West Pokot	9,706 (1.10%)	5,287 (54.47%)	4,419 (45.53%)	102 (1.19%)	9,068 (1.08%)	4,998 (55.12%)	4,070 (44.88%)	74 (1.54%)

County Code & Name	2014			AB (%)	2013			AB (%)
	Total (%)	Male (%)	Female (%)		Total (%)	Male (%)	Female (%)	
25 Bomet	21,051 (2.39%)	10,606 (50.38%)	10,445 (49.62%)	68 (0.79%)	20,208 (2.41%)	10,266 (50.80%)	9,942 (49.20%)	52 (1.08%)
26 Uasin Gishu	20,882 (2.37%)	10,329 (49.46%)	10,553 (50.54%)	177 (2.06%)	20,360 (2.42%)	10,008 (49.16%)	10,352 (50.84%)	86 (1.79%)
27 Nakuru	44,810 (5.09%)	22,220 (49.59%)	22,590 (50.41%)	479 (5.57%)	42,650 (5.08%)	21,359 (50.08%)	21,291 (49.92%)	240 (4.99%)
28 Kericho	22,646 (2.57%)	11,229 (49.58%)	11,417 (50.42%)	161 (1.87%)	20,829 (2.48%)	10,374 (49.81%)	10,455 (50.19%)	67 (1.39%)
29 Nandi	19,529 (2.22%)	9,539 (48.85%)	9,990 (51.15%)	179 (2.08%)	18,113 (2.16%)	8,919 (49.24%)	9,194 (50.76%)	99 (2.06%)
30 Laikipia	10,540 (1.20%)	5,340 (50.66%)	5,200 (49.34%)	83 (0.97%)	10,349 (1.23%)	5,219 (50.43%)	5,130 (49.57%)	56 (1.16%)
31 Kajiado	14,574 (1.66%)	7,704 (52.86%)	6,870 (47.14%)	190 (2.21%)	13,283 (1.58%)	7,071 (53.23%)	6,212 (46.77%)	90 (1.87%)
32 Narok	16,464 (1.87%)	9,112 (55.34%)	7,352 (44.66%)	112 (1.30%)	15,001 (1.79%)	8,329 (55.52%)	6,672 (44.48%)	79 (1.64%)
33 Baringo	14,796 (1.68%)	7,505 (50.72%)	7,291 (49.28%)	91 (1.06%)	13,954 (1.66%)	7,130 (51.10%)	6,824 (48.90%)	31 (0.64%)
34 Elgeyo Marakwet	11,494 (1.31%)	5,607 (48.78%)	5,887 (51.22%)	62 (0.72%)	11,313 (1.35%)	5,679 (50.20%)	5,634 (49.80%)	43 (0.89%)
35 Busia	17,484 (1.99%)	8,952 (51.20%)	8,532 (48.80%)	123 (1.43%)	16,187 (1.93%)	8,362 (51.66%)	7,825 (48.34%)	127 (2.64%)
36 Bungoma	38,405 (4.36%)	18,878 (49.16%)	19,527 (50.84%)	226 (2.63%)	35,014 (4.17%)	17,205 (49.14%)	17,809 (50.86%)	156 (3.24%)
37 Kakamega	40,592 (4.61%)	19,272 (47.48%)	21,320 (52.52%)	380 (4.42%)	37,428 (4.46%)	18,146 (48.48%)	19,282 (51.52%)	189 (3.93%)
38 Vihiga	14,029 (1.59%)	6,519 (46.47%)	7,510 (53.53%)	113 (1.31%)	14,148 (1.68%)	6,602 (46.66%)	7,546 (53.34%)	67 (1.39%)
39 Kisumu	22,126 (2.51%)	11,081 (50.08%)	11,045 (49.92%)	211 (2.45%)	21,045 (1.68%)	10,598 (50.36%)	10,447 (49.64%)	154 (3.20%)
40 Kisii	27,462 (3.12%)	13,683 (49.83%)	13,779 (50.17%)	189 (2.20%)	26,471 (3.15%)	13,534 (51.13%)	12,937 (48.87%)	126 (2.62%)
41 Homa Bay	23,913 (2.72%)	12,884 (53.88%)	11,029 (46.12%)	333 (3.87%)	22,486 (2.68%)	12,323 (54.80%)	10,163 (45.20%)	240 (4.99%)
42 Siaya	21,101 (2.40%)	10,521 (49.86%)	10,580 (50.14%)	257 (2.99%)	19,990 (2.38%)	10,272 (51.39%)	9,718 (48.61%)	154 (3.20%)
43 Nyamira	13,994 (1.59%)	6,956 (49.71%)	7,038 (50.29%)	110 (1.28%)	12,952 (1.54%)	6,633 (51.21%)	6,319 (48.79%)	73 (1.52%)
44 Migori	21,958 (2.49%)	11,766 (53.58%)	10,192 (46.42%)	249 (2.90%)	19,443 (2.32%)	10,791 (55.50%)	8,652 (44.50%)	170 (3.53%)
45 Garissa	7,995 (0.91%)	5,381 (67.30%)	2,614 (32.70%)	149 (1.73%)	7,632 (0.91%)	5,231 (68.54%)	2,401 (31.46%)	178 (3.70%)
46 Wajir	4,067 (0.46%)	2,737 (67.30%)	1,330 (32.70%)	34 (0.40%)	3,710 (0.44%)	2,478 (66.79%)	1,232 (33.21%)	13 (0.27%)
47 Mandera	4,664 (0.53%)	3,182 (68.22%)	1,482 (31.78%)	1 (0.50%)	4,788 (0.57%)	3,351 (69.99%)	1,437 (30.01%)	36 (0.75%)
48 Kauda	989 (0.11%)	589 (59.56%)	400 (40.44%)	15 (0.17%)	904 (0.11%)	561 (62.06%)	343 (37.94%)	-
TOTAL	880,486 (100.00%)	443,258 (50.34%)	437,228 (49.66%)	8,597 (100%)	839,759 (100.00%)	426,369 (50.77%)	413,390 (49.22%)	4,810 (100%)

Table 3: KCPE Examination Candidates who sat for the Examination under Special Circumstances in 2014 & 2013 by County

1. Taita Taveta	17	17	00	00	00	00	08	01	02	03	00	01	27	22
2. Kwale	00	00	02	00	00	00	05	16	04	04	19	28	30	48
3. Mombasa	00	40	03	00	07	07	11	16	16	27	12	09	49	99
4. Kilifi	00	00	02	01	00	00	05	12	10	10	30	29	47	52
5. Tana River	00	00	00	00	00	00	04	02	00	00	04	03	08	05
6. Lamu	00	00	01	01	00	00	01	03	04	00	04	00	10	04
7. Nyandarua	00	00	01	00	00	00	03	04	18	14	15	11	37	29
8. Nyeri	10	17	00	00	00	00	04	07	03	10	06	06	23	42
9. Kirinyaga	00	00	00	00	00	00	20	01	06	03	12	11	38	15
10. Murang'a	15	00	01	02	00	00	07	01	08	08	12	19	43	30
11. Kiambu	00	00	01	00	17	21	23	13	68	31	19	23	128	88
12. Machakos	01	00	01	02	04	03	10	07	38	30	20	19	74	61
13. Kitui	13	00	00	00	05	03	11	05	11	16	26	21	66	45
14. Embu	10	00	01	00	00	00	04	01	08	14	11	09	34	24
15. Meru	00	00	04	03	08	03	21	13	25	14	27	20	85	53
16. Marsabit	00	00	00	00	00	00	01	01	03	01	00	00	04	02
17. Isiolo	00	00	00	00	00	00	01	00	00	00	11	09	12	09
18. Makueni	00	00	00	02	00	00	13	13	22	17	13	10	48	42
19. Tharaka Nithi	01	00	00	00	00	00	18	03	14	03	00	00	33	06
20. Nairobi	23	29	03	01	00	04	27	22	25	32	19	11	197	99
21. Turkana	09	00	00	01	00	02	09	14	01	04	12	11	31	32
22. Samburu	00	00	01	00	01	01	04	22	02	02	03	06	11	31
23. Trans Nzoia	23	00	01	02	04	01	15	34	14	17	03	00	60	54
24. West Pokot	00	00	00	00	14	05	13	05	06	03	00	00	33	13
25. Bomet	01	01	01	00	02	03	14	05	12	20	00	00	30	28
26. Uasin Gishu	16	00	01	00	01	00	15	10	06	10	09	08	48	28
27. Nakuru	43	00	01	01	00	02	10	06	16	17	19	18	89	123
28. Kericho	00	00	01	01	03	01	09	06	11	14	22	32	46	54
29. Nandi	00	01	01	03	00	00	05	07	09	06	15	11	30	27
30. Laikipia	08	00	00	00	00	00	07	04	09	04	08	00	32	08
31. Kajiado	16	00	00	01	00	00	12	13	08	55	04	07	40	76
32. Narok	00	00	01	00	01	00	03	09	06	04	01	00	12	13
33. Baringo	00	00	00	01	04	01	13	08	05	09	15	11	37	30
34. Elgeyo Marakwet	00	00	02	03	02	02	09	12	09	14	08	09	30	40
35. Busia	07	00	00	01	00	00	11	10	10	09	12	09	40	29
36. Bungoma	00	00	04	01	00	00	34	38	107	90	24	20	169	149
37. Kakamega	00	00	03	02	01	03	25	32	59	40	51	48	139	125
38. Vihiga	01	00	00	02	00	00	09	07	05	02	28	24	43	35
39. Kisumu	30	00	00	03	09	04	42	38	36	28	31	20	148	219

40. Kisii	01	13	02	03	01	01	09	05	09	08	24	21	46	38
41. Homa Bay	01	00	01	01	00	00	46	28	19	26	23	28	90	83
42. Siaya	00	00	00	03	08	08	35	37	04	10	27	24	74	82
43. Nyamira	00	00	01	00	00	00	09	07	12	22	01	00	23	29
44. Migori	00	00	02	02	00	00	38	05	10	13	37	44	87	64
45. Garissa	00	02	00	00	02	02	33	50	21	19	19	08	75	79
46. Wajir	00	00	01	02	00	00	02	01	00	04	10	11	13	18
47. Mandera	00	00	00	00	02	00	12	03	04	02	00	00	18	05
Totals	248	307	44	45	96	77	640	557	695	690	666	609	2,389	2,287

2.2 PAPERS OFFERED

In 2014 KCPE examination, candidates sat for eight (08) papers, namely; English Objective, English Composition, Kiswahili Objective, Kiswahili Insha, Kenyan Sign Language (KSL), Mathematics, Science, Social Studies and Religious Education (SSRE).

2.3 CANDIDATES' PERFORMANCE IN 2014 KCPE EXAMINATION

The candidates' overall performance by gender for the years 2014, 2013, 2012 and 2011 examinations was as shown in table 4.

Table 4: Overall candidates' performance in 2014, 2013, 2012 and 2011 KCPE Examination per Subject/Paper and Gender

		Candidates' performance by gender											
		2014				2013				2012			
		Male	Female	Total	Average	Male	Female	Total	Average	Male	Female	Total	Average
1.	English Language	47.64	47.72	47.56	53.06	53.26	52.84	48.16	48.46	47.92	47.10	46.67	47.51
2.	English Composition	41.47	42.95	40.00	41.90	43.73	40.13	42.43	44.38	40.58	42.45	44.20	40.80
3.	Kiswahili Lugha	45.04	45.02	45.08	45.78	45.80	45.78	46.38	46.42	46.34	41.46	41.02	41.88
4.	Kiswahili Insha	58.00	60.23	55.83	52.43	54.75	50.18	54.98	57.43	52.63	54.68	56.83	52.68
5.	Mathematics	52.04	50.18	53.88	52.86	51.44	54.22	56.30	54.00	58.48	52.18	49.94	54.28
6.	Science	66.00	63.10	68.88	61.82	59.26	64.30	62.76	59.44	65.94	67.48	63.80	70.92
7.	Social Studies	55.26	52.70	57.79	54.75	52.50	56.93	60.87	57.78	63.82	56.32	53.41	59.07
8.	Religious Education	68.97	68.77	69.17	70.43	70.57	70.27	75.73	76.07	75.43	62.45	61.48	63.34

Table 5: Aggregate mark distribution of candidates in the 2014 & 2013 KCPE Examinations

Year	Range of aggregate marks									
	0-50	51-100	101-150	151-200	201-250	251-300	301-350	351-400	401-450	451-500
2014	50 (0.01%)	6,051 (0.69%)	49,100 (5.59%)	144,838 (16.50%)	245,942 (28.02%)	232,152 (26.45%)	138,459 (15.78%)	55,491 (6.32%)	5,584 (0.64%)	
2013	51 (0.01%)	7,929 (0.95%)	49,428 (5.91%)	128,793 (15.40%)	233,040 (27.86%)	231,209 (27.64%)	129,480 (15.48%)	50,555 (6.04%)	5,976 (0.71%)	

2.4 MARKING OF THE KCPE EXAMINATION

The objective papers in the KCPE examination are machine scored/marked while the compositions are manually marked by examiners. The KCPE examination is a norm-reference examination whereby candidates' scores are standardized to make the scores in each of the subjects have the same weighting.

2.4.1 Rationale behind the Standardization of Raw Marks to Standard Marks

Standardization of Raw Marks to Standard Marks in the KCPE examination is a process that involves adjusting the raw marks for each paper in the examination to allow for differences in difficulty and in the extent to which **marks scatter (standard deviation)**. In this process of standardization, the difficulty among the papers is measured in terms of the **mean raw marks** scored by all candidates, while the differences in scatter are measured in terms of the **Standard Deviation**.

It entails converting the raw marks of each paper in the KCPE examination so that the mean and Standard Deviations of each of the papers are identical. For the KCPE examination, the mean expected of a normal distribution is **50** and the standard deviation is **15**. The formula used for converting the raw scores to standard score is as follows:

$$X_{SD} = 50 + \frac{[X - M]}{SD} \times 15$$

Where X_{SD} = Standard score
 X = raw mark obtained by the candidates
 M = mean raw mark
 SD = Standard deviation of the raw marks

Example:

2.4.1.1 In a paper where the mean raw mark of all candidates is 20 and a Standard Deviation is 10, the standard score for a candidate whose raw marks is 25 would be:

$$50 + \frac{[25 - 20]}{10} \times 15 \approx 58$$

2.4.1.2 In a paper where the mean raw mark of all candidates is 47 and a Standard Deviation is 10 the candidate whose raw marks is 25 would be:

$$50 + \frac{[25 - 47]}{10} \times 15 \approx 17$$

2.4.2 Standard Scores

Standard scores as can be seen from the illustrations above are a measure of relative performance and have the ability to tell us how a candidate has performed in comparison to the other candidates. They are

essential when results from different papers must be combined to give an overall total, as is the case in the KCPE examination, and are useful for comparing relative performance of a candidate from subject to subject or from year to year. Once the raw marks have been standardized, the cut-off marks for all grades from Grade A to Grade E are identical for all subjects and are therefore maintained at the same level from year to year. The standardized scores are then used for reporting candidates' performance and for selection purposes. When the scores are standardized the relative positions of the candidates remain unchanged; the top candidate in each subject still remains at the top.

Standard scores always convey the exact information as to the position of a candidate relative to other candidates sitting the same examination.

Standard scores are essential if marks from several papers are to be added to give a total score, and it is desired that each paper should contribute equally to the total score.

2.5 THE OBJECTIVE OF THE KCPE EXAMINATION REPORT

The objective of the KCPE Examination report is to form a dialogue between KNEC and the relevant stakeholders in order to enhance candidates' enrolment and performance by providing the indicators of enrolment as well as performance so that the relevant stakeholders can review the targets. The KCPE examination report also informs teachers and prospective candidates of areas of weaknesses for purposes of improvement. It also includes the question papers that candidates sat for in the year 2014 KCPE examination.

This year's report:

- 2.5.1 gives a detailed analysis of candidates' performance in each of the KCPE examination papers;
- 2.5.2 provides the classroom teachers with information about pupils' weaknesses in the course content;
- 2.5.3 provides suggestions on better teaching and learning methods that can enhance performance;
- 2.5.4 gives teachers advice on how they can re-orientate their teaching strategies to enhance pupils' learning and performance.

The year 2014 KCPE examination report therefore highlights those items in which candidates performed poorly and also advances possible reasons for the poor performance. It is hoped that analysis and discussion of difficult items will be helpful to the teachers and the comments given will continue to enrich their teaching methodology so as to enhance students' learning and hence improve their performance.

While the Council presents analysis and discussions of only the poorly performed questions, it is hoped that teachers will analyse all the questions at subject level to assess both the content and the cognitive skills tested for the benefit of teaching their future candidates better.

In determining the performance of candidates, *item analysis* is used. Item analysis involves determining the **Facility Index (f-index)** and **Discrimination Index (d-Index)** of each question in the paper for the chosen sample population of candidates. The facility index refers to the relative measure of **difficulty or ease** of a question based on the percentage of candidates obtaining a correct response to a question. The discrimination index on the other hand indicates how successfully a question can sort out the abilities into different categories ranging from the highest achiever to the lowest one. A good question is considered to be one that has a **Facility Index** of between **30% and 80%**. Any question therefore with a Facility Index of below 30% is considered to have been found difficult by the candidates and one **above 80%**

is considered to have been found easy by the candidates. This is the criteria used by the *Item Analysis programme* to select questions with the low facility indices in a paper for discussion in the KCPE examination report.

Sometimes questions that have a *facility index of 40%* are considered for discussion. Candidates find a question difficult usually because of inadequate coverage of the syllabus content, which makes the candidates unable to tackle the question except by guessing. Candidates will also find it difficult to handle questions that require *higher order thinking abilities* like questions involving *problem solving, evaluation, application* etc. unless they have been taught how to handle such questions.

In the discussions of the questions that candidates performed poorly, a response pattern is given for every question showing the percentage of candidates from the sample population choosing the options to the question. An *asterisk (*)* on an option denotes the correct response to the question and the *Facility Index* of the item is indicated below the correct response. Also under the response pattern, information on the mean mark of candidates in other questions is given. This is the average score on the rest of the items for each group of candidates choosing an option and it is important as it shows the way each group of candidates choosing a specific option scored in the other questions of the paper.

We encourage teachers to offer any informed comments and/or suggestions that can be considered for inclusion in future issues of the KCPE Examination Report to make them more enriching.

Comments and/or suggestions may be forwarded to us in writing or by completion of the questionnaire found at the end of this report. We would like to thank all those who have given us suggestions and/or comments before on our previous issues of the KCPE Examination Reports.

The Council would like to remind schools and the general public that all past and current issues of the KCPE Examination Report can be purchased from the Kenya National Examinations Council **Mitihani Bookshop** situated on the ground floor of the National Housing Corporation Building. The cost and postage charges of the KCPE Report will be given on request.

2.6 APPRECIATION

Finally, I wish therefore to commend the efforts of P. Korir, G. Ingolo, J. Mutwiri, J. Kiviu, G. Itute, K. Iman, J. Kariuki, H. Bundu, A. Matei, S. Mundi, A. Amaunda, L. Ronoh, E. Ngota, G. Mwenja, A. Kikuvu, ICT, Test Development, Reprographics & Manuscript Departments, Research Division and the entire Senior Management of the Council for their contributions in one way or the other to the preparation and publication of this booklet.



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