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Examinations Council (KNEC) is a state corporation established through an Act of Parliament (CAP 225A, Law of Kenya - repealed in 2012 with KNEC Act No. 29 of 2012) to conduct school and post-school examinations within Kenya as it may consider desirable in the public interest and to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:

The 2012 KNEC Act provides that the functions of KNEC are to:

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 diplomas 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 EXAMINATIONS OFFERED BY THE COUNCIL

The Council *develops, prints, distributes, administers, marks, processes examinations* and awards *certificates* to successful candidates in the following examinations:-

1.3.1 SCHOOL EXAMINATIONS:

1.3.1.1 Kenya Certificate of Primary Education (KCPE);

1.3.1.2 Kenya Certificate of Secondary Education (KCSE).

1.3.2 TEACHER EDUCATION EXAMINATIONS:

1.3.2.1 Primary Teachers Education (PTE);

1.3.2.2 Teacher Certificate in Adult Education (TCAE);

1.3.2.3 Early Childhood Development and Education (ECDE);

1.3.2.4 Diploma in Teacher Education (DTE);

1.3.2.5 Special Needs Education (SNE).

1.3.3 BUSINESS EXAMINATIONS:

1.3.3.1 Business Education Single and Group Certificate (BES&GC);

1.3.3.2 Artisan, Certificate, Diploma and Higher Diploma in Business Technical Education Programmes (BTEP);

1.3.3.3 Certificate and Diploma in Business Technical and Vocational Education and Training (BTVET) programmes in areas such as Secretarial Studies; Sales and Marketing; Supply Chain Management; Business Management; Human Resource Management; Transport Management; Maritime Transport Operations and Logistics; Tourism and Tour Guiding Management; Information Studies and Information Communication Technology; Investment Management; Project Management and Petroleum Management.

1.3.4 TECHNICAL EXAMINATIONS:

1.3.4.1 National Vocational Certificate in Education and Training (NVCET);

1.3.4.2 Artisan, Certificate, Diploma and Higher Diploma in Technical Education Programmes (TEP);

1.3.4.3 Certificate and Diploma in Technical and Vocational Education and Training (TVET) programmes in areas such as Food and Beverage Management; Textile Technology; Surveying; Road Construction; Water Technology; Civil and Highway Engineering; Architecture; Mechnical, Electrical and Eletronics Engineering; Marine Engineering; Aeronautical Engineering; Medical Engineering; Baking Technology; Pharmaceutical Technology; Medical Laboratory Technology; Chemical Engineering and Petroleum Geoscience.

## 2.0 GENERAL INFORMATION ON THE YEAR 2015 KCPE EXAMINATION

2.1 KCPE EXAMINATION CANDIDATURE

In 2015, the candidates who registered for the KCPE examination were *927,789* compared to *880,486* candidates registered in 2014. This represents an increase of *47,303 (5.37%)* candidates. The KCPE Examination candidatature for the last ten years is as shown in **Table 1.**

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

	TOTAL CANDIDATURE		*Males*		*Females*	
Year	*Total No. Sat*	*Increase/ Decrease (%)*	*No. Sat (%)*	*Increase/ Decrease (%)*	*No. Sat (%)*	*Increase/ Decrease (%)*
2015	*927,789*	*47,303 (5.37%)*	*467,904 (50.43%)*	*24,646 (5.56%)*	*459,885 (49.57%)*	*22,657 (5.18%)*
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%)

Graph 1: KCPE Examination Candidature Trends for the Last 10 Years
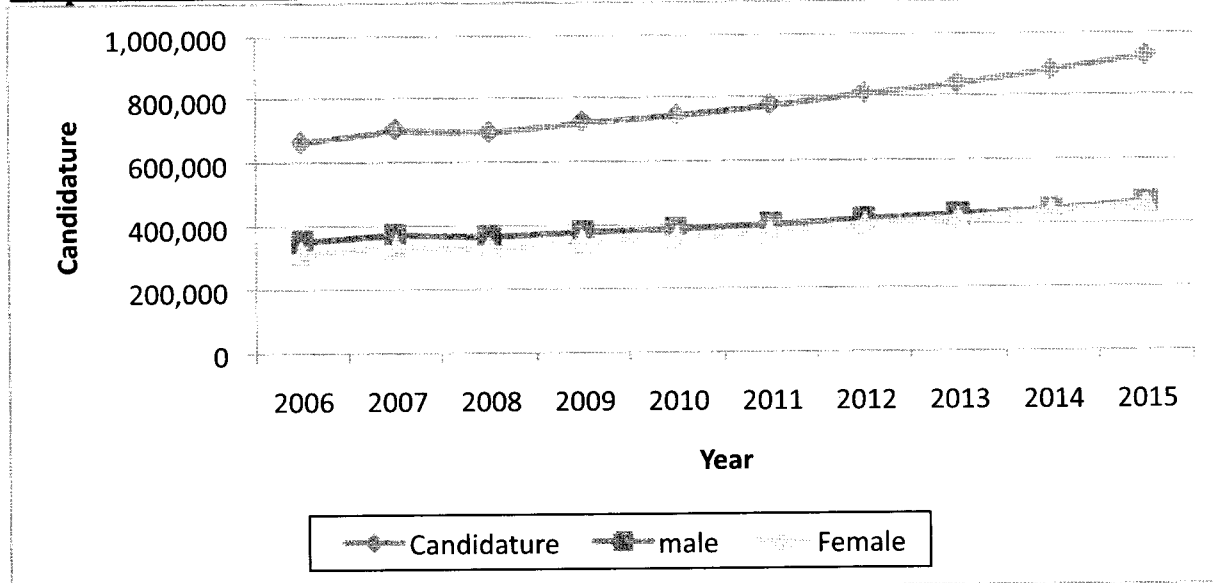
Observations from Table 1 and graph 1

2.1.1 Candidature increased by **47,303 (5.37%)** to **927,789** in 2015 KCPE examination compared to **880,486** candidates registered in 2014.

2.1.2 Female candidates increased by **22,657 (5.18%)** while male candidates increased by **24,646 (5.56%)** respectively.

2.1.3 For the last ten years, there have been more **male** than **female** candidates registering for the KCPE examination.

Table 2: <u>2015 & 2014 KCPE Examination Candidature by County</u>

County Code & Name	2015			AB (%)	2014			AB (%)
	Total Cand. (%)	Male (%)	Female (%)		Total Cand. (%)	Male (%)	Female (%)	
01 Taita Taveta	8,242 (0.89%)	4,156 (50.42%)	4,086 (49.58%)	90 (0.81%)	8,305 (0.94%)	4,150 (49.97%)	4,155 (50.03%)	78 (0.91%)
02 Kwale	15,170 (1.64%)	8,003 (52.76%)	7,167 (47.24%)	95 (0.85%)	15,224 (1.73%)	7,852 (51.58%)	7,372 (48.42%)	80 (0.93%)
03 Mombasa	16,243 (1.75%)	8,198 (50.47%)	8,045 (49.53%)	190 (1.71%)	16,028 (1.82%)	8,139 (50.78%)	7,889 (49.22%)	163 (1.90%)
04 Kilifi	29,096 (3.14%)	15,133 (52.01%)	13,963 (47.99%)	538 (4.83%)	28,645 (3.25%)	14,755 (51.51%)	13,890 (48.49%)	455 (5.29%)
05 Tana River	4,007 (0.43%)	2,264 (56.50%)	1,743 (43.50%)	57 (0.51%)	3,774 (0.43%)	2,074 (54.95%)	1,700 (45.05%)	65 (0.76%)
06 Lamu	2,542 (0.27%)	1,294 (50.90%)	1,248 (49.10%)	37 (0.33%)	2,454 (0.28%)	1258 (51.26%)	1,196 (48.74%)	33 (0.38%)
07 Nyandarua	19,098 (2.06%)	9,416 (49.30%)	9,682 (50.70%)	377 (3.39%)	18,689 (2.12%)	9,233 (49.40%)	9,456 (50.60%)	328 (3.82%)
08 Nyeri	18,062 (1.95%)	8,981 (49.72%)	9,081 (50.28%)	102 (0.92%)	18,867 (2.14%)	9,513 (50.42%)	9,354 (49.58%)	87 (1.01%)
09 Kirinyaga	12,111 (1.31%)	5,956 (49.18%)	6,155 (50.82%)	281 (2.52%)	12,305 (1.40%)	6,008 (48.83%)	6,297 (51.17%)	210 (2.44%)
10 Murang'a	25,191 (2.72%)	12,716 (50.48%)	12,475 (49.52%)	259 (2.33%)	23,640 (2.68%)	11,884 (50.27%)	11,756 (49.73%)	226 (2.63%)
11 Kiambu	37,319 (4.02%)	18,395 (49.29%)	18,924 (50.71%)	459 (4.12%)	38,373 (4.36%)	19,083 (49.73%)	19,290 (50.27%)	358 (4.16%)
12 Machakos	31,914 (3.44%)	15,842 (49.64%)	16,072 (50.36%)	290 (2.61%)	30,936 (3.51%)	15,280 (49.39%)	15,656 (50.61%)	213 (2.48%)
13 Kitui	34,305 (3.70%)	17,026 (49.63%)	17,279 (50.37%)	306 (2.75%)	33,831 (3.84%)	16,562 (48.96%)	17,269 (51.04%)	310 (3.61%)
14 Embu	13,763 (1.48%)	6,691 (48.62%)	7,072 (51.38%)	142 (1.28%)	13,190 (1.50%)	6,337 (48.04%)	6,853 (51.96%)	78 (0.91%)
15 Meru	28,917 (3.12%)	13,169 (45.54%)	15,748 (54.46%)	509 (4.57%)	27,605 (3.14%)	12,740 (46.15%)	14,865 (53.85%)	378 (4.40%)
16 Marsabit	3,769 (0.41%)	2,075 (55.05%)	1,694 (44.95%)	49 (0.44%)	3,492 (0.40%)	1,972 (56.47%)	1,520 (43.53%)	51 (0.59%)
17 Isiolo	2,877 (0.31%)	1,489 (51.76%)	1,388 (48.24%)	48 (0.43%)	2,783 (0.32%)	1,454 (52.25%)	1,329 (47.75%)	24 (0.28%)
18 Makueni	30,251 (3.26%)	14,836 (49.04%)	15,415 (50.96%)	254 (2.28%)	28,719 (3.26%)	13,983 (48.69%)	14,736 (51.31%)	165 (1.92%)

County Code & Name	2015			AB (%)	2014			AB (%)
	Total Cand. (%)	Male (%)	Female (%)		Total Cand. (%)	Male (%)	Female (%)	
19 Tharaka Nithi	9,968 (1.07%)	4,923 (49.39%)	5,045 (50.61%)	62 (0.56%)	9,204 (1.05%)	4,471 (48.58%)	4,733 (51.42%)	83 (0.97%)
20 Nairobi	50,112 (5.40%)	24,228 (48.35%)	25,884 (51.65%)	698 (6.27%)	48,383 (5.50%)	23,440 (48.45%)	24,943 (51.55%)	752 (8.75%)
21 Turkana	9,042 (0.97%)	5,839 (64.58%)	3,203 (35.42%)	269 (2.42%)	7,224 (0.82%)	4,462 (61.77%)	2,762 (38.23%)	131 (1.52%)
22 Samburu	3,591 (0.39%)	2,182 (60.76%)	1,409 (39.24%)	35 (0.31%)	3,251 (0.37%)	1,929 (59.34%)	1,322 (40.66%)	39 (0.45%)
23 Trans Nzoia	22,416 (2.42%)	11,078 (49.42%)	11,339 (50.58%)	331 (2.97%)	20,293 (2.30%)	9,800 (48.29%)	10,493 (51.71%)	154 (1.79%)
24 West Pokot	10,190 (1.10%)	5,527 (54.24%)	4,663 (45.76%)	134 (1.20%)	9,706 (1.10%)	5,287 (54.47%)	4,419 (45.53%)	102 (1.19%)
25 Bomet	22,258 (2.40%)	11,169 (50.18%)	11,089 (49.82%)	116 (1.04%)	21,051 (2.39%)	10,606 (50.38%)	10,445 (49.62%)	68 (0.79%)
26 Uasin Gishu	22,751 (2.45%)	11,263 (49.51%)	11,488 (50.49%)	209 (1.88%)	20,882 (2.37%)	10,329 (49.46%)	10,553 (50.54%)	177 (2.06%)
27 Nakuru	46,892 (5.05%)	23,433 (49.97%)	23,459 (50.03%)	640 (5.75%)	44,810 (5.09%)	22,220 (49.59%)	22,590 (50.41%)	479 (5.57%)
28 Kericho	22,980 (2.48%)	11,333 (49.32%)	11,647 (50.68%)	104 (0.93%)	22,646 (2.57%)	11,229 (49.58%)	11,417 (50.42%)	161 (1.87%)
29 Nandi	20,719 (2.23%)	10,257 (49.51%)	10,462 (50.49%)	258 (2.32%)	19,529 (2.22%)	9,539 (48.85%)	9,990 (51.15%)	179 (2.08%)
30 Laikipia	10,893 (1.17%)	5,449 (50.30%)	5,414 (49.70%)	115 (1.03%)	10,540 (1.20%)	5,340 (50.66%)	5,200 (49.34%)	83 (0.97%)
31 Kajiado	15,235 (1.64%)	7,947 (52.16%)	7,288 (47.84%)	175 (1.57%)	14,574 (1.66%)	7,704 (52.86%)	6,870 (47.14%)	190 (2.21%)
32 Narok	17,656 (1.90%)	9,796 (55.48%)	7,860 (44.52%)	161 (1.45%)	16,464 (1.87%)	9,112 (55.34%)	7,352 (44.66%)	112 (1.30%)
33 Baringo	14,447 (1.56%)	7,324 (50.70%)	7,123 (49.30%)	83 (0.75%)	14,796 (1.68%)	7,505 (50.72%)	7,291 (49.28%)	91 (1.06%)
34 Elgeyo Marakwet	12,717 (1.37%)	6,197 (48.73%)	6,520 (51.27%)	52 (0.47%)	11,494 (1.31%)	5,607 (48.78%)	5,887 (51.22%)	62 (0.72%)
35 Busia	20,746 (2.24%)	10,497 (50.60%)	10,249 (49.40%)	239 (2.15%)	17,484 (1.99%)	8,952 (51.20%)	8,532 (48.80%)	123 (1.43%)
36 Bungoma	44,572 (4.80%)	21,883 (49.10%)	22,689 (50.90%)	506 (4.55%)	38,405 (4.36%)	18,878 (49.16%)	19,527 (50.84%)	226 (2.63%)
37 Kakamega	43,178 (4.65%)	20,771 (48.11%)	22,407 (51.89%)	484 (4.35%)	40,592 (4.61%)	19,272 (47.48%)	21,320 (52.52%)	380 (4.42%)
38 Vihiga	16,179 (1.74%)	7,459 (46.10%)	8,720 (53.90%)	213 (1.91%)	14,029 (1.59%)	6,519 (46.47%)	7,510 (53.53%)	113 (1.31%)
39 Kisumu	23,906 (2.58%)	12,023 (50.29%)	11,883 (49.71%)	333 (2.99%)	22,126 (2.51%)	11,081 (50.08%)	11,045 (49.92%)	211 (2.45%)
40 Kisii	28,862 (3.11%)	14,390 (49.86%)	14,472 (50.14%)	235 (2.11%)	27,462 (3.12%)	13,683 (49.83%)	13,779 (50.17%)	189 (2.20%)
41 Homa Bay	25,931 (2.79%)	13,873 (53.50%)	12,058 (46.50%)	478 (4.30%)	23,913 (2.72%)	12,884 (53.88%)	11,029 (46.12%)	333 (3.87%)
42 Siaya	22,542 (2.43%)	11,097 (49.23%)	11,445 (50.77%)	387 (3.48%)	21,101 (2.40%)	10,521 (49.86%)	10,580 (50.14%)	257 (2.99%)
43 Nyamira	14,688 (1.58%)	7,330 (49.90%)	7,358 (50.10%)	133 (1.20%)	13,994 (1.59%)	6956 (49.71%)	7,038 (50.29%)	110 (1.28%)

County Code & Name	2015			AB (%)	2014			AB (%)
	Total Cand. (%)	Male (%)	Female (%)		Total Cand. (%)	Male (%)	Female (%)	
44 Migori	23,464 (2.53%)	12,585 (53.64%)	10,879 (46.36%)	326 (2.93%)	21,958 (2.49%)	11,766 (53.58%)	10,192 (46.42%)	249 (2.90%)
45 Garissa	7,926 (0.85%)	5,214 (65.73%)	2,712 (34.22%)	179 (1.61%)	7,995 (0.91%)	5.381 (67.30%)	2,614 (32.70%)	149 (1.73%)
46 Wajir	4,374 (0.47%)	2,796 (63.92%)	1,578 (36.08%)	42 (0.38%)	4,067 (0.46%)	2,737 (67.30%)	1,330 (32.70%)	34 (0.40%)
47 Mandera	5,034 (0.54%)	3,369 (66.92%)	1,665 (33.08%)	36 (0.32%)	323 (0.53%)	228 (68.22%)	95 (31.78%)	1 (0.50%)
48 Kauda	1,643 (0.18%)	1,002 (60.99%)	641 (39.01%)	13 (0.30)	989 (0.11%)	589 (59.56%)	400 (40.44%)	15 (0.17%)
TOTAL	927,789 (100.00%)	467,904 (50.43%)	459,885 (49.57%)	11,129	880,486 (100.00%)	443,258 (50.34%)	437,228 (49.66%)	8,597

Table 3: KCPE Examination Candidates who sat for the Examination under Special Circumstances in 2015 & 2014 by County

County Code and Name	Blind		Low vision		Physically/ Mentally Challenged		Hearing impaired		Total	
	2015	2014	2015	2014	2015	2014	2015	2014	2015	2014
1. Taita Taveta	00	00	10	08	03	02	04	00	17	10
2. Kwale	01	00	04	05	01	04	24	19	30	28
3. Mombasa	13	07	13	11	36	16	18	12	80	46
4. Kilifi	00	00	08	05	08	10	50	30	66	45
5. Tana River	03	00	09	04	15	00	04	04	31	08
6. Lamu	00	00	01	01	01	04	00	04	02	09
7. Nyandarua	00	00	04	03	12	18	13	15	29	36
8. Nyeri	00	00	05	04	04	03	12	06	21	13
9. Kirinyaga	00	00	04	20	04	06	12	12	20	38
10. Murang'a	00	00	05	07	12	08	17	12	34	27
11. Kiambu	23	17	19	23	44	68	24	19	110	127
12. Machakos	02	04	06	10	40	38	20	20	68	72
13. Kitui	04	05	11	11	11	11	21	26	47	53
14. Embu	00	00	07	04	07	08	14	11	28	23
15. Meru	11	08	22	21	21	25	30	27	84	81
16. Marsabit	00	00	07	01	01	03	00	00	08	04
17. Isiolo	03	00	04	01	01	00	10	11	18	12
18. Makueni	00	00	09	13	35	22	11	13	55	48
19. Tharaka Nithi	00	00	04	18	08	14	09	00	21	32
20. Nairobi	01	00	14	27	25	25	15	19	55	71
21. Turkana	01	00	04	09	02	01	09	12	16	22
22. Samburu	00	01	14	04	04	02	01	03	19	10

County Code and Name	Blind		Low vision		Physically/ Mentally Challenged		Hearing impaired		Total	
	2015	2014	2015	2014	2015	2014	2015	2014	2015	2014
23. Trans Nzoia	02	04	09	15	16	14	01	03	28	36
24. West Pokot	07	14	41	13	06	06	00	00	54	33
25. Bomet	00	02	07	14	19	12	01	00	27	28
26. Uasin Gishu	00	01	11	15	67	06	07	09	85	31
27. Nakuru	03	00	11	10	08	16	21	19	43	45
28. Kericho	01	03	15	09	10	11	26	22	52	45
29. Nandi	00	00	04	05	11	09	12	15	27	29
30. Laikipia	00	00	04	07	04	09	12	08	20	24
31. Kajiado	03	00	08	12	06	08	09	04	26	24
32. Narok	00	01	02	03	10	06	00	01	12	11
33. Baringo	01	04	09	13	05	05	12	15	27	37
34. Elgeyo Marakwet	01	02	08	09	16	09	12	08	37	28
35. Busia	00	00	04	11	04	10	17	12	25	33
36. Bungoma	02	00	39	34	54	107	34	24	129	165
37. Kakamega	00	01	09	25	39	59	60	51	108	136
38. Vihiga	00	00	06	09	01	05	31	28	38	42
39. Kisumu	10	09	40	42	28	36	30	31	108	118
40. Kisii	01	01	04	09	12	09	20	24	37	43
41. Homa Bay	00	00	37	46	37	19	26	23	100	88
42. Siaya	10	08	31	35	11	04	23	27	75	74
43. Nyamira	00	00	09	09	19	12	00	01	28	22
44. Migori	00	00	23	38	21	10	39	37	83	85
45. Garissa	01	02	24	33	18	21	16	19	59	75
46. Wajir	01	00	06	02	03	00	08	10	18	12
47. Mandera	01	02	07	12	05	04	00	00	13	18
Totals	105	96	552	640	726	695	735	666	2,118	2,097

2.2 PAPERS OFFERED

In 2015 KCPE examination, candidates sat for nine (09) papers, namely; English Objective, English Composition, Kiswahili Objective, Kiswahili Insha, Kenyan Sign Language (KSL), Mathematics, Science, Social Studies and Religious Education (SSRE).

Table 4: Overall candidates' performance in 2015, 2014 and 2013 KCPE Examination per Subject/Paper and Gender

Papers	Mean Performance (%)								
	2015			2014			2013		
	All	Female	Male	All	Female	Male	All	Female	Male
English Language	49.98	50.06	49.90	47.63	47.71	47.55	53.06	53.26	52.84
English Composition	41.38	43.40	39.38	41.47	42.95	40.01	41.90	43.73	40.13
Kiswahili Lugha	44.68	44.82	44.54	45.05	45.02	45.08	45.78	45.80	45.78
Kiswahili Insha	54.38	56.83	51.98	58.01	60.23	55.82	52.43	54.75	50.18
Mathematics	56.16	54.08	58.22	52.04	50.18	53.88	52.86	51.44	54.22
Science	55.48	53.24	57.68	66.01	63.10	68.88	61.82	59.26	64.30
Social Studies	49.98	47.45	52.47	52.50	50.07	54.89	54.75	52.50	56.93
Religious Education	70.20	70.07	70.33	68.97	68.76	69.18	70.43	70.57	70.27

Table 5: KCPE Examination Candidates' Performance Statistics by Range of Marks (2015 and 2014)

Category	Year & Number of Candidates obtaining the Range of Marks	
	2015	2014
Below Mean (001 – 249)	472,568 (50.93%)	443,406 (50.36%)
Above Mean (250 – 500)	455,221 (49.07%)	437,080 (49.64%)

Table 6: 2015 KCPE Examination Candidates' Performance Statistics by Range of Marks

Range of Marks	Number of Candidates	% of Total Candidates
401 - 500	7,560	0.81%
301 - 400	201,986	21.77%
201 - 300	499,568	53.85%
101 - 200	215,614	23.24%
000 - 100	3,061	0.33%

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:

$$X_{SD} = 50 + \frac{[X - M]}{SD} x15$$

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:

$$50 + \frac{[25 - 20]}{10} x15 \approx 58$$

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:

$$50 + \frac{[25 - 47]}{10} x15 \approx 17$$

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 2015 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 2015 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. Ochich, G. Ingolo, J. Sabari, J. Mutwiri, J. Kiviu, G. Itute, K. Iman, J. Kariuki, H. Bundu, A. Matei, S. Mundi, A. Amaunda, L. Ronoh, E. Ngota, G. Mwenja, ICT, Test Development, Reprographics & Manuscript Departments, Research & Quality Assurance 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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