

3.4 BUILDING CONSTRUCTION (446)

The 2012 KCSE examinations for Building Construction consisted of two papers namely Paper 1 (theory) and Paper 2 (Practical Project). The theory was worth 60% while practical was worth 40% of the final mark. The revised syllabus was tested for the first time but the format and weighting of the two papers was the same as in the previous years.

Candidates General Performance

Table 11: Candidates' overall performance for the period 2008 to 2012

Year	Paper	Candidature	Maximum Score	Mean Score	Standard Deviation
2008	1		60	33.83	5.36
	2		40	15.78	2.47
	Overall	18	100	49.61	5.98
2009	1		60	31.13	6.96
	2		40	18.77	4.57
	Overall	195	100	49.74	9.38
2010	1		60	26.26	9.09
	2		40	17.53	3.38
	Overall	225	100	43.79	13.32
2011	1		60	23.72	9.09
	2		40	15.76	4.32
	Overall	301	100	37.70	12.58
2012	1		60	25.27	9.79
	2		40	16.90	4.86
	Overall	376	100	42.13	13.64

From the above table, the following observations can be made.

- (i) The mean score improved from 37.70 for the year 2011 to 42.13 for the year 2012.
- (ii) The candidature increased from 301 in the year 2011 to 376 in the year 2012.
- (iii) The candidature has been increasing since the year 2008.

3.4.1 Building Construction paper 1 (446/1)

The questions which were reported to have been poorly performed have been analyzed with a view to pointing out candidates' weaknesses and propose suggestions on some remedial measures that would be taken in order to improve performance in future. The questions for discussions include 1 (b), 4, 9.

Question 1 (b)

Sketch and label a plain concrete roofing tile.
Candidates were tested in sketching skills.

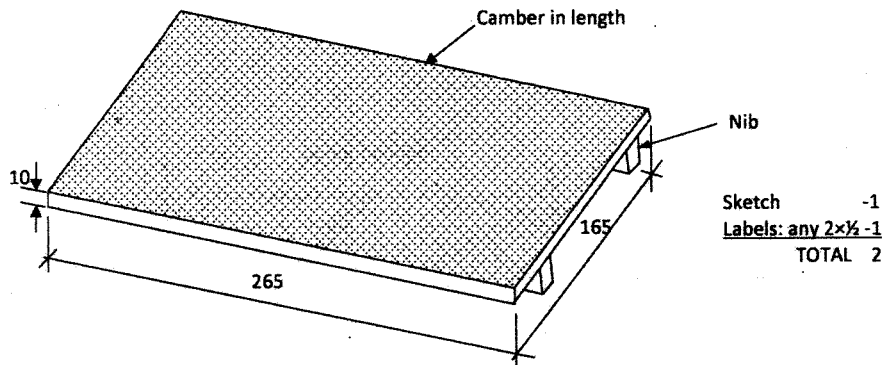
Weaknesses

Most candidates could not sketch and label the concrete roofing tile correctly. Some showed the position for nailing which should not be the case in tiles.

Advice to Teachers

They should cover the whole syllabus and when it comes to tiles the method of securing should be emphasized.

Expected Responses



Question 4

- (a) State the recommended minimum height above the finished floor level for the following electrical fittings:
- Switch
 - Wall socket

Candidates were tested on electrical fittings as per a finished floor.

Weaknesses

None of the candidates was able to give the correct height for the switch and wall socket.

Advice to Teachers

They need to explain to the students the use of IEEE Regulations as applied to electrical fittings in buildings

Expected Responses

- Switch-1400 mm
- Wall socket- 325mm

Question 9 (b)

Sketch the following lengthening joints:

- (i) Plain scarf joint
- (ii) Splay joint

Candidates were expected to sketch the given lengthening joints.

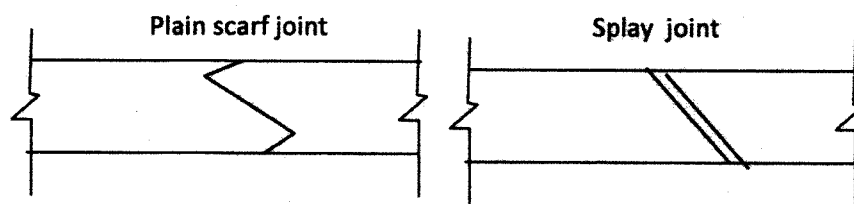
Weaknesses

Most candidates could not differentiate between scarf and splay joints.

Advice to Teachers

They should cover the topic on timber joints thoroughly.

Expected Responses



3.18.2 Building Construction Paper 2 (446/2)

As in the previous years, the council designed a suitable project for this level together with a comprehensive marking scheme. The subject teachers used the working drawings to supervise the construction and the marking scheme to mark the candidates' projects. The marks were then sent to the council through the D.E.O's offices.