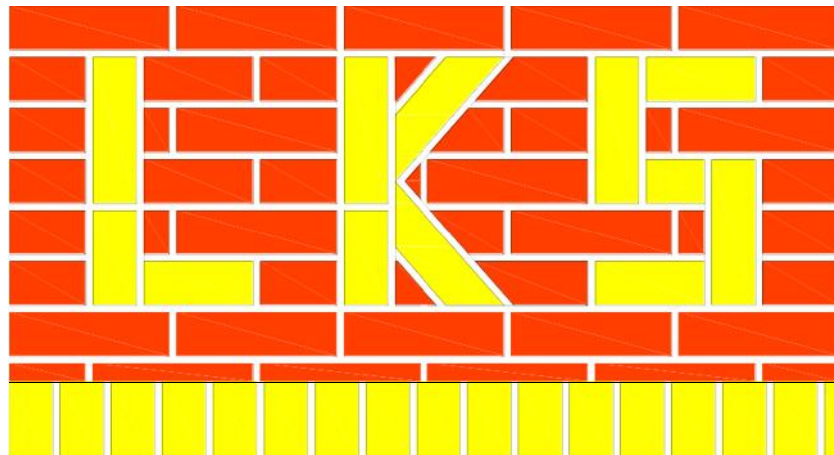


**LOMBA KOMPETENSI SISWA (LKS)
SEKOLAH MENENGAH KEJURUAN TINGKAT NASIONAL
KE XXV TAHUN 2017**

**KISI – KISI
BIDANG LOMBA**

BRICKLAYING



**KEMENTERIAN PENDIDIKAN DAN KEBUDAYAAN
DIREKTORAT JENDERAL MANAJEMEN PENDIDIKAN DASAR DAN MENENGAH
DIREKTORAT PEMBINAAN SEKOLAH MENENGAH KEJURUAN
TAHUN 2017**

A. Introduction

The practical test is included 2 parts: part 1 and part 2

- Part 1 Bricklaying and finishing joint, no plastering :

- + Bricklaying :

- Bricklaying complex - structure with clay bricks of 60 x 100 x 215 mm, and concrete block no plastering.

- Time: 9 hours.

- Part 2 are included 2 works:

- + Bricklaying :

- Bricklaying complex - structure with clay bricks of 60 x 100 x 215 mm, and concrete blocks 100 x 200 x 440 mm.

- Time: 6 hours.

- + Plastering:

- Plastering complex - structure

- Time: 1 hour.

Time allowed for 2 parts is 16 hours over the 3 days of competition.

B. Project information

Projects have designed to incorporate the following technical skills:

1. Execution of drawings.
2. Measurement and marking out.
3. Leveling and plumbing.
4. Cutting and shaping bricks using traditional hand tool and masonry saws.
5. Building walls in accordance to plans including all decorative work.
6. Joints finishing.
7. Work cleanliness.
8. Bricklaying of part 1 commences on day one and second day.
9. Part 2 commences on the second day and third day.
10. Plastering of part 2 commences on the third day.
11. Marking for bricklaying of the part 1 will commence on the first evening or the second morning and evening.
12. Marking for bricklaying of the part 2 will commence on the third afternoon and evening.
13. The plastering of the part 2 will be marked on the third afternoon or morning.
14. Final marks may not be known until the end of the competition.
15. Final marking will be at the end of day 3 and be completed the day following the competition.

C. Specification

1. All brickwork to be set out and constructed to dimensions, bonds and angles as specified on the drawings.
2. All decorative and practical details to be constructed to projections, angles, radii and overhangs as shown on drawings.
3. All cut bricks to be produced accurately to shape required whilst maintaining 10 mm perpend joints.
4. All bricks to be laid showing best face and arises.
5. All brickwork to be taken up maintaining plumb level in alignment and to the correct angles.
6. Brickwork to be taken up to a vertical gauge.
7. Cut faces where possible to be concealed in wall, not shown on back.
8. All details to be built as per instructions available on the drawings.
9. Bricklaying mortar :
Cement - sand mortar (1 PC : 3 Sand) or Drymix (MU or SIKA Plastermix Produk)
10. Plastering Mortar :
Cement - sand mortar (1 PC : 2,5 Sand) or Drymix (MU or SIKA Plastermix Produk).

D. Instruction to competitors

1. Time allowed is 16 hours finishing 2 parts.
2. Requirement for competitors
 - It is 10 minutes prior to the commencement of competition, competitors will be provided materials, and know the position as they draw lots.
 - Competitors are not allowed to ask about the drawing and method of construction during the competition.
 - Competitors are not allowed to mark any symbols on their products .If they do so, their products will not be marked.
 - When the time is over, competitors must announce to the expert about their products.
 - Materials are available at site and competitors will be helped to do cleaning.
 - Competitors to check the measuring tools.
 - Competitors to wear safety clothes suitable with their work.
 - If there's any problem, competitors to speak to the expert for help.
 - Competitors are not allowed to leave the competition without permission.
3. Materials
 - Clay Brick (Batu bata pres) 60 x 100 x 215 mm.
 - Light Brick (Bata ringan) 100 x 200 x 440 mm.
 - Drymix/SIKA/MU (adukan kering siap pakai).

4. Tools and means of production

a. The competitor must bring the remaining tools in a toolbox **(Peralatan yang harus dibawa peserta) :**

- Brick trowel (cetok pasang bata)
- Plastering trowel (cetok plesteran)
- Pointing trowel (cetok lidah/lancip)
- Wooden float (roskam kayu)
- Measuring (meteran)
- Hammer (palu)
- Leveling (Waterpass 50 cm)
- Leveling (waterpass) 100 or 120 mm
- Square (siku baja)
- Line bobbins (penahan benang)
- Plumb line (unting-unting)
- Jointer (pembentuk nat)
- Hand saw (gergaji tangan)
- Helmed (helm)
- Safety footwear (sepatu kerja)
- Safety clothes (pakaian kerja)
- Eye protection (kacamata pengaman)
- Masker (penutup debu)

b. The committee must be prepare the remaining tools for competitors **(peralatan yang disediakan panitia) :**

- Folding rule (Jidar aluminium 200 cm)
- Hoe (cangkul)
- Mortar box (kotak adukan)
- Pail (ember)
- Tub stock water (bak tandon air)
- Electric cutting brick machine (mesin pemotong bata)
- Water hose (selang air)
- Wood (papan kayu 10 x 100 x 1000 mm)

E. Test Project marking

The experts will decide together on the marking criteria and the dimensional tolerances.

1. Marking Criteria Building the part 1 and 2 :

- Basic dimension
- Structure
- Joint thickness
- Vertically
- Flatness
- Perpendicular
- Leveling
- Solid of joint
- Cutting
- Working productivity

2. Marking Criteria Plastering :

- Vertically
- Flatness
- Smoothness
- Productivity

The experts with every competitors the best during the competition.

“Good luck”

LEMBAR INFORMASI
LKS TINGKAT NASIONAL KE XXV TAHUN 2017
BIDANG LOMBA BRICKLAYING

1. PEBIMBING :

- Mengikuti Teknikel Meeting sebelum pelaksanaan lomba dengan waktu dan tempat ditentukan kemudian.
- Diperkenankan membantu kompetitor dalam penyiapan peralatan sebelum pelaksanaan perlombaan.
- Diperkenankan membantu kompetitor dalam pembersihan lokasi dan perapihan bahan serta peralatan setelah selesai lomba.
- Dilarang membantu dalam bentuk apapun kepada kompetitor ketika lomba berlangsung, kecuali seijin Juri.
- Diperkenankan melihat prosesi penilaian dengan tidak mengganggu atau intervensi terhadap keputusan Juri.
- Membantu menciptakan suasana meriah dan kekeluargaan diantara sesama Pebimbing, Kompetitor, Juri dan semua yang terlibat dalam pelaksanaan lomba dengan tidak mengganggu kompetitor.

2. KOMPETITOR :

- Mengikuti Teknikel Meeting sebelum pelaksanaan lomba dengan waktu dan tempat ditentukan kemudian.
- Datang 15 menit sebelum lomba dimulai.
- Mempersiapkan peralatan dan bahan dengan atau tanpa bantuan Pebimbing.
- Mengikuti lomba dengan tertib dan tidak mengganggu sesama kompetitor pada waktu berjalannya lomba.
- Menggunakan alat pelindung diri (APD) : kacamata, masker, dan penutup telinga pada waktu memotong batu bata/bata ringan.
- Jika menemui masalah harus melapor kepada Juri.
- Tidak diperkenankan berbicara dengan Juri kecuali pada waktu istirahat dan Ishoma.
- Wajib membersihkan lokasi lomba, menata bahan dan peralatan setiap lomba telah selesai.
- Mengikuti pengarahan akhir dari Juri sebelum meninggalkan lokasi lomba.
- Tidak diperkenankan menggunakan bahan kimia untuk pembersihan pasangan.

**JADWAL KOMPETISI BIDANG LOMBA BRICKLAYING
LKS TINGKAT NASIONAL KE XXV TAHUN 2017
TGL**

NO	HARI/TGL	JAM	KEGIATAN	KETERANGAN/ WAKTU
1	1	13.00-17.00	Technical meeting dilanjutkan pesiapan dan pemotongan bata	
2	2	08.15-10.15	Kompetisi	2 jam
		10.15-10.30	istirahat	
		10.30-12.00	Kompetisi	1jam 30 menit
		12.00-13.00	Isoma	
		13.00-15.00	Kompetisi	2 jam
		15.00-15.15	istirahat	
		15.15-16.45	Kompetisi	1 jam 30 menit
				Jumlah 7 jam
3	3	08.15-10.15	Kompetisi	2 jam
		10.15-10.30	istirahat	
		10.30-12.00	Kompetisi	1jam 30 menit
		12.00-13.00	Isoma	
		13.00-15.30	Kompetisi	2 jam
		15.00-15.15	istirahat	
		15.15-16.45	Kompetisi	1 jam 30 menit
				Jumlah 7 jam
4	4	08.15-10.15	Kompetisi	2 jam
		11.00-17.00	Penilaian	Juri
				Total 16 jam

