

TECHNICAL GRAPHICS

SUBJECT 7049

PAPER 1

GENERAL COMMENT

The performance of candidates was the same as the previous year. The candidates who performed well displayed a high standard of work with neatly drawn diagrams and accurate constructions. Those who did poorly left out important construction lines and work was poorly presented.

QUESTION 1

This was correctly answered by the majority of candidates.

QUESTION 2

Neat construction of the triangle was displayed. However very few candidates managed to construct the required triangle from the given perimeter which was scale to (190mm). Establishment of the centre of the inscribed circle and drawing of the T were generally well done.

QUESTION 3

Many candidates were able to establish the base for the flag poles which was 140mm to scale, and the distance between the first and last flags which was 130. However a good number of candidates failed to make the basic construction of dividing the line geometrically into 12 equal parts. A significant number wasted time redrawing the flagpoles instead of representing them as centre lines as per question requirement.

QUESTION 4

A generally poorly answered question. Many candidates who attempted the question failed to produce a conventional circuit diagram. Many marks were lost on the failure to position the positive (+ve) of the battery on the circuit against the fuse and switch.

QUESTION 5

A poorly answered question with very few candidates managing to establish and state the actual true lengths required. Candidates should have realized that AD is a true length on the given plan.

QUESTION 6

This was not a popular question with candidates. Most candidates were only able to divide the locus of B adequately but failed to do the same for the angle ABC for purposes of plotting.

QUESTION 7

A poorly answered question by the majority of candidates, who failed to project at right angles to AB. Some failed to produce a plan of the roof opening to use for plotting the true shape.

QUESTION 8

This was a popular question with the candidates generally correctly positioning the roads for the routes in good proportion. However most candidates failed to place relevant features along the route save for the petrol station along Mainway and Farai Hotel thereby losing a lot of valuable marks. The most wrongly oriented road was Potts Avenue. A significant number of candidates did not indicate on their maps, the separate routes to be taken for boys and girls and provide a key.

QUESTION 9

A popular question where many candidates managed to score marks from their 3 sketches. However a number of solutions had no relevance to water "conservation" or "protection". Some candidates lost marks on the final solution for not using instruments to accurately draw the best solution. Some marks were lost for lack of use of colour appropriately and rendering of solutions.

QUESTION 10

Not a popular question with candidates. The majority of candidates who attempted this question were able to correctly convert the quadrilateral into a square. However a few of them produced linear enlarged drawings instead of area enlarged ones.

QUESTION 11

Quite a popular question with many candidates managing to correctly construct the parabola after establishing the vertex and the focus. However the majority of the candidates failed to produce correctly the tangents to the parabola. A significant number of candidates, after having established the minor and major axis of the ellipse failed to correctly plot it and resorted to simply sketching it.

QUESTION 12

A more popular option to question 13 with most candidates managing to establish the curve of intersection and the development of the cone. However a significant number of candidates used the wrong measurements for plan of the circle base for the cone. In a few instances candidates used the semicircular block A for plotting. The majority of the candidates failed to notice the hidden line on the front view on part of the line of intersection.

QUESTION 13

Of the few candidates who attempted this question very few succeeded in plotting for the full auxiliary plan as required by the question. Of those that understood the need for a full auxiliary plan, few plotted for the cylinder base successfully. Some candidates projected for an auxiliary elevation thereby depriving themselves the face S required as a true shape.