

TECHNICAL GRAPHICS

SUBJECT 7049

PAPER 1

GENERAL COMMENTS

There was a notable increase in the number of candidates who sat for the Graphic Communication and Geometrical Drawing paper as compared to the previous year. The standard of work for those candidates who performed well also showed a great deal of improvement.

QUESTION 1

All candidates answered this question. Many, however, failed to interpret the effect of the cutting plane. Some candidates wasted time redrawing the answer instead of printing the number corresponding to the correct answer.

QUESTION 2

Many candidates made a fair attempt at answering this question. The letter "G" was not well shaped in most instances thereby causing candidates to lose marks. A few candidates wasted time re-printing the word "PARK".

QUESTION 3

Many candidates were able to plot the graduations on respective axes. A few had haphazard scales that resulted in difficulties in plotting the required graphs. A few also did not label the different lines for companies 'A' and 'B'. This caused loss of marks.

QUESTION 4

This was a challenging question for the candidates. This was because they generally recognise a right cone resting on its base. Failure to establish the apex of the pyramid meant failure to establish and plot the required end view. Quite a number of candidates projected a plan and hence the true shape of B-B, with the required circular hole was not drawn correctly.

QUESTION 5

This was also a challenging question for the candidates. The majority of candidates failed to figure out the method of construction to establish the curve of intersection between the prism and cone.

QUESTION 6

Few candidates managed to establish the centre of the curve "c-c" and to measure and state the radius accurately. Very few knew the required curve.

QUESTION 7

The majority of candidates recognised it as a regular pentagon. Many did not show the construction lines. The majority managed to use the given scale correctly. However, many did not produce the correct hexagonal bolt head.

QUESTION 8

This was a very unpopular question. Very few candidates managed to get the correct vanishing points and the curved part.

QUESTION 9

This was a popular question. The majority of candidates managed to interpret the scale. Roads were labelled and features shown. Candidates could have produced more accurate drawings by just using a line for the road instead of using wide roads.

QUESTION 10

This was very popular question. Failure to construct the epicycloid by most of the candidates resulted in loss of marks. Curve AB was used as a basis for construction of the locus.

QUESTION 11

This was not a popular question. Most of the candidates who attempted it constructed a parabola instead of a hyperbola. Candidates could not use the ratio of eccentricity to establish the vertex as well as the triangle of eccentricity. Some used the same given directrix for both curves.

QUESTION 12

Many candidates could not interpret the views because of failure to read the drawing in third angle projection. They also failed to interpret interpenetration between solids with slanting surfaces.

QUESTION 13

Many candidates failed to answer the question because of the orientation of the cone (inverted). A few candidates realised that the required conic section was a parabola. Most of the candidates did not realise the need for additional generators on the cut portion to accurately plot the development.