

GEOMETRICAL AND MECHANICAL/BUILDING DRAWING

SUBJECT 9196

PAPER 1

GENERAL COMMENTS

The performance was generally average, with the majority of the candidates managing to respond to all the questions as per paper requirements. The quality of draughtsmanship was, however, below the expected standards, especially line work and layout of work. Interpretation of the question's demands was well covered by the majority of the candidature, as reflected by the drawing concepts which were clearly highlighted in most of the constructions.

COMMENTS ON INDIVIDUAL QUESTIONS

QUESTION 1

Well done by the candidates, with constructions clearly shown. Naming the locus produced was inaccurate, since most candidates confused Trochoids for Cycloids.

QUESTION 2

The concept of oblique planes was well tackled by the candidates, especially the conversion of an oblique plane to an inclined plane. Candidates, however, failed to project the traces of the intersection onto the original views, i.e. establishing the horizontal and vertical traces of the point of intersection.

QUESTION 3

Candidates should note that isometric projection refers to the use of the isometric scale; hence marks were lost for failure to use the isometric scale. The isometric sphere also needs attention.

QUESTION 4

This question was poorly done by the majority of the candidature. A full development of the cylindrical tin was needed for the establishment of the elevation with the label.

QUESTION 5

Very popular with the candidates, and was well done, with clear and accurate constructions. The joint line, however, if not given should always be taken on the shorter edge.

QUESTION 6

The performance graph/displacement diagram was well done save for the determination of the lift which was inaccurate in most solutions. The concept of the radical arm cam was not properly interpreted in the establishment of the cam profile for the motion.

QUESTION 7

Not popular with the candidature, and those who attempted failed to complete the elevation. To complete the elevation, the use of an auxiliary view was mandatory.

QUESTION 8

This was attempted by few candidates who did very well by managing to draw the perspective view of the bracket.

QUESTION 9

Very popular with the candidates, however, not well done. The concept of scale and hanging/suspended loads was well treated in answering the question. Establishment of the bending moment diagram on the horizontal base was also not properly dealt with hence significant magnitudes were not indicated as a result.