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University Examinations 2019/2020

FIRST YEAR, SECOND SEMESTER EXAMINATION FOR CERTIFICATE IN BUILDING TECHNOLOGY

EMC 1150: TECHNICAL DRAWING II

DATE: OCTOBER, 2020

TIME: 1½ HOURS

INSTRUCTIONS: Answer question *one* and any other *two* questions.

QUESTION ONE (30 MARKS)

- A pentagon prism with side of base 30mm and axis 60mm long is resting on its base on H.P such that one of its rectangular faces is parallel to VP and 15mm away from it. Draw the projection of the prism. (8 marks)
- With well labeled diagrams produce the First angle and Third angle projection of the drawing. Attached is figure 1.0 using your scale (10 marks)
- By the principle of free hand sketching, sketch the figure 1.1 (4 marks)
- Explain four types of lines that are used in orthographic projection. (6 marks)
- Differentiate between 1st angle and 3rd angle orthographic projection. (2 marks)

QUESTION TWO (15 MARKS)

The isometric projection of Engineering building block is shown in figure 1.2. draw in first angle projection

- The front elevation in the direction of arrow A

- b) An end elevation in the direction of ArrowsB
- c) A plain
- d) A projection symbol

Include at least five (5) important dimensioning methods

QUESTION THREE (15 MARKS)

A cylinder 50mm diameter and 70mm axis is completely penetrated by another of 40mm diameter and 70mm axis horizontally. Both axes intersect and bisect each other. Draw projection showing curves of intersections. (15 marks)

QUESTION FOUR (15 MARKS)

With a well labeled diagram, illustrate the following in orthographic projection. (15 marks)

- (i) Vertical plane (V.P)
- (ii) Horizontal plane (H.P)
- (iii) Quadrant
- (iv) Angle of turn direction
- (v) Profile plane
- (vi) First angle projection and 3rd angle projection