

UNIVERSITY
OF
JOHANNESBURG

<u>FACULTY</u>	: Education
<u>DEPARTMENT</u>	: Science and Technology Education
<u>CAMPUS</u>	: APK
<u>MODULE</u>	: EGD10A2 ENGINEERING GRAPHICS AND TECHNOLOGY EDUCATION 2A
<u>SEMESTER</u>	: First
<u>EXAM</u>	: June 2018

<u>DATE</u>	: 6 June 2018	<u>SESSION</u>	: 12:30-15:30
<u>ASSESSOR(S)</u>	: MR W ENGELBRECHT		
<u>MODERATOR</u>	: DR CF VAN AS		
<u>DURATION</u>	: 3 HOURS	<u>MARKS</u>	: 100

NUMBER OF PAGES: 5 PAGES

INSTRUCTIONS:

1. Answer ALL the questions.
 2. Number your answers clearly.
 3. Answer all the questions on the answer sheets provided.
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QUESTION 1: Assembly drawings

Given:

- The exploded isometric drawing of the parts of a **stop valve** assembly, showing the position of each part relative to all the others.
- Third angle orthographic views of each of the parts of the stop valve assembly.

Instructions:

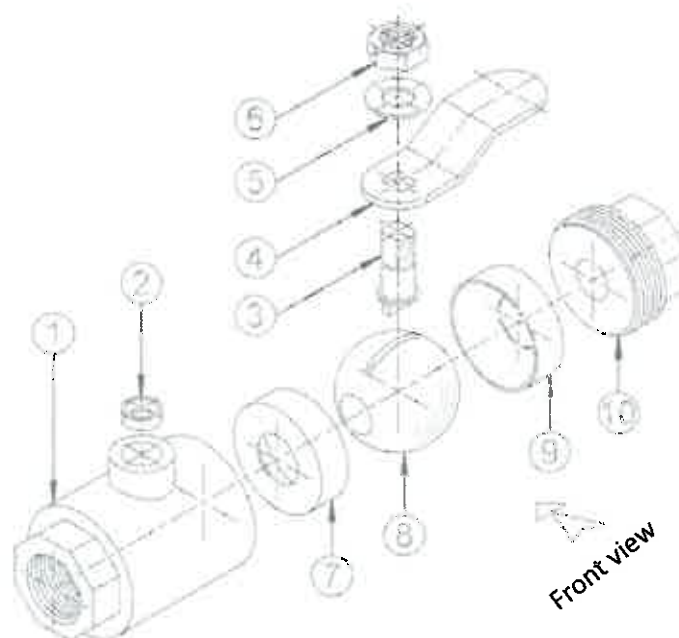
Draw to scale 1:1 and in third angle orthographic projection, the following views of the assembled parts of the stop valve assembly:

1.1 A sectional front view on cutting plane A-A, as seen from the direction of the arrow shown on the exploded isometric drawing. The cutting plane, which passes vertically through the centre of the assembly, is shown on the left view of the valve body (part 1). **(50)**

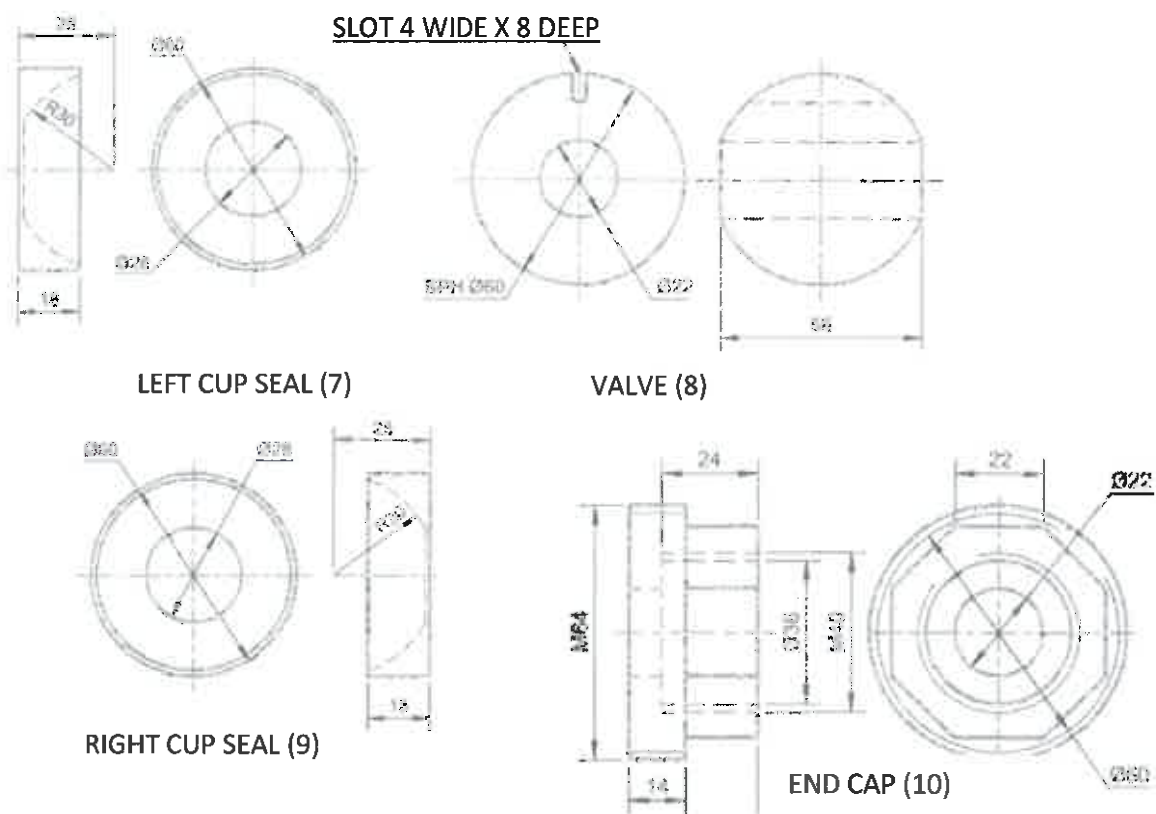
1.2 The left view. **(20)**

Note:

- Show three faces of the nut in the front view and ALL necessary construction lines.
- No hidden detail is required.



EXPLODED ISOMETRIC VIEW



QUESTION 2: Isometric drawing

Given:

- The front view, top view and left view in third angle orthographic projection of a jig with a cutting plane A-A.
- The position of point S on the answer sheet.

Instructions:

Use scale 1:1 and convert the orthographic views of the jig into a sectional isometric drawing on cutting plane A-A. **(30)**

- Make S the lowest point of the drawing.
- Show all necessary construction lines.
- No hidden detail is required.

