



### **QUESTION ONE (COMPULSORY)**

- a) Discuss five types of lathes. **(5 Marks)**
- b) Outline four causes of failures on a twist drill. **(4 Marks)**
- c) Discuss the working principle of a shaping machine. **(3 Marks)**
- d) State the function of a morse taper **(2 Marks)**.
- e) Using a well labeled diagram show the parts of a twist drill and state the functions of the flute. **(6 Marks)**

### **QUESTION TWO**

- a) State and explain eleven safety precautions that must be observed when using a lathe machine in a workshop. **(11 Marks)**
- b) Outline four basic conditions that must be satisfied to successfully drill a hole on a work piece **(4 Marks)**

### **QUESTION THREE**

- a) Discuss any five cutting operations that could be used in fabrication of goods in a workshop. **(10 Marks)**
- b) Using well labelled sketches discuss the following operations, which can be performed by a shaper machine **(5 Marks)**.

### **QUESTION FOUR**

- a) Discuss five parts of the shaper machine. **(10 Marks)**
- b) Outline any five design considerations an operator should observed when screw thread cutting when using a lathe machine. **(5 Marks)**