

SCT 265-2 Engineering Workshop Technology

Part B - Essay (Answer on a separate booklet)

7. Consider the part given in Figure 1. Identify the features and develop a suitable Process Plan (to manufacture it).

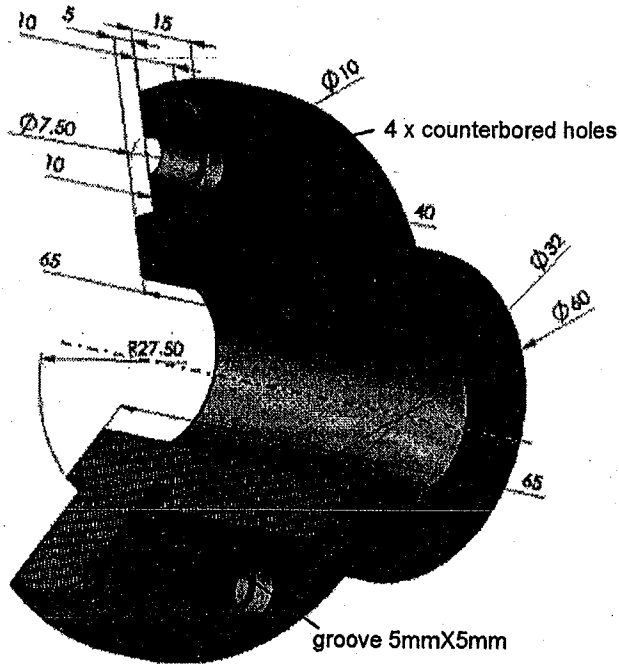


Figure 1

(25 marks)

8. Reconsider the part shown in Figure 1. Estimate the cost of machining this part. State all the assumptions, machining processes used and other assumptions clearly.

(25 marks)

9. Calculate the indexing requirement for the following divisions on a milling machine equipped with a differential indexing head. The index plates available are

Plate no. 1 15, 16, 17, 18, 19, 20 holes

Plate no. 2 21, 23, 27, 29, 31, 33 holes

Plate no. 3 37, 39, 41, 43, 47, 49 holes

The change gear set available is 24, 24, 28, 32, 40, 44, 48, 56, 64, 72, 86, 100.

- a. 58 divisions
- b. 79 divisions
- c. 92
- d. 17.5°
- e. 133