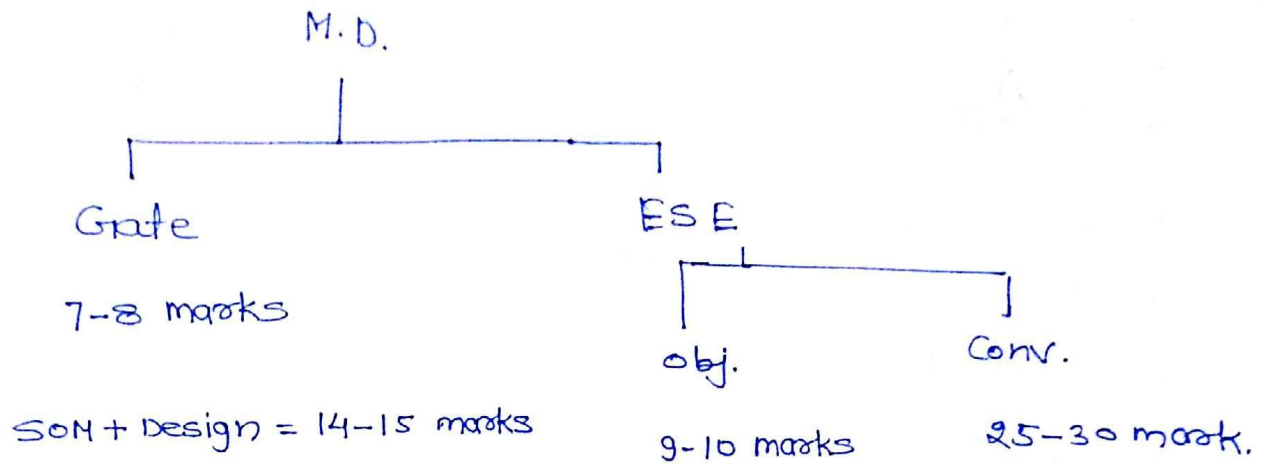


-:- Machine Design :-:-

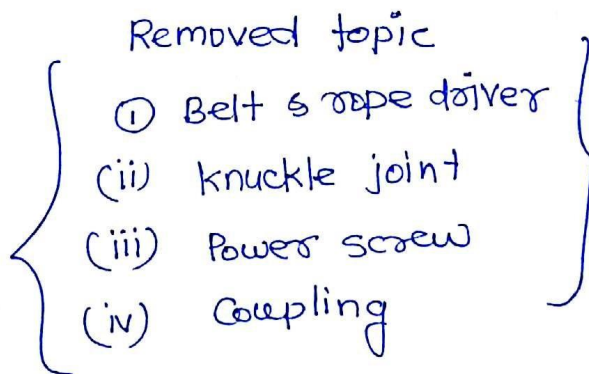


✓ - Break

✓ - Design of Flywheel

ESE - 2017

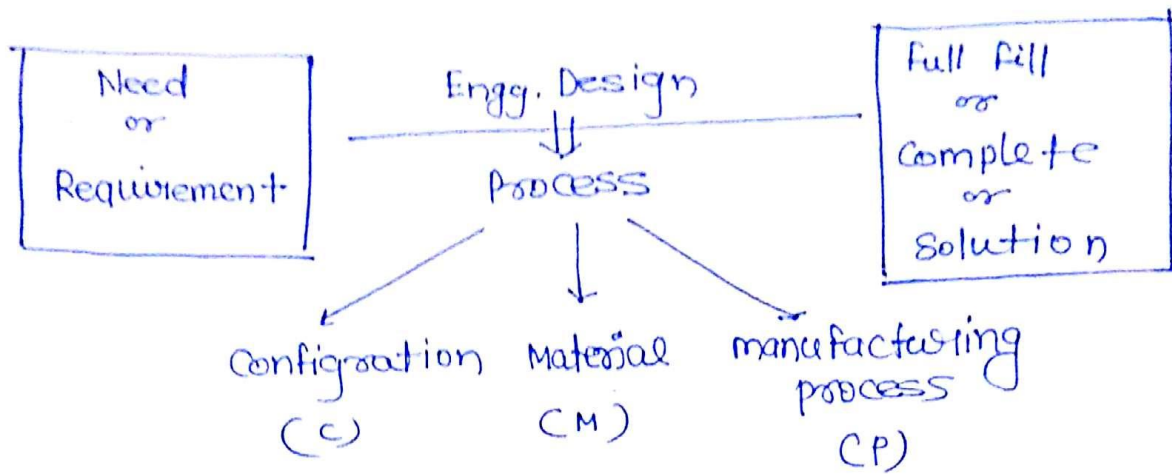
4-5 obj.



(v) key ✓ (shaft) ✓
Not mention.

- cotter joint
- key
- Bearing
- Clutches
- Breaks
- Gear
- Riveted joint
- Bolted joint
- Fatigue Design of shaft.
- Welded joint
- Design of Flywheel
- Helical spring.

Engineering Design:-



Engg. design is an iterative decision making activity to convert resources optimally to satisfy the human need.

The ultimate aim of design is to prepare a drawing or chart (i.e. selection of appropriate shape, app. material, calculation for appropriate dimension and the selection of manu. detail) in such a way ~~the~~ the resulting machine component should perform its functionally satisfactorily (without any failure).

Step used while designing a machine element:-

- ① specify the function of the m/c element
- ② Define various load acting on the m/c component while performing its functionality, (load analysis)

- ③ selection of appropriate shape. (All Geometric properties are known)
- ④ selection of appropriate material. (All mechanical properties are known)
- ⑤ Define mode of failure. (Failure stress are known under combined stress condition)
- ⑥ Calculation of shape dimensions by using some equations.
- ⑦ selection of manufacturing process detail.
- ⑧ Prepare a chart or ~~design~~ drawing.

Cotter Joint:-

