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Question Paper Code:U5103

M.E. DEGREE EXAMINATION, NOV/DEC 2024

First Semester

CAD / CAM

21PCD503-DESIGN OF HYDRAULIC AND PNEUMATICS SYSTEM

(Regulations 2021)

Duration: Three hours

Maximum: 100 Marks

Answer ALL Questions

PART - A (5 x 20 = 100 Marks)

1. (a) Sketch and write short notes on CO1 - U (20)
(i) lobe pumps (ii) Gerotor pump (iii) screw pump.
Or
(b) Explain the various factors to be considered in selection of pumps. CO1 - U (20)
2. (a) Illustrate the counter balance valve with one of its applications in CO2-App (20)
detail.
Or
(b) Illustrate the working principle of unloading valve with its CO2-App (20)
application?
3. (a) Design the hydraulic circuit used to control the motion of a CO2 - Ana (20)
hydraulic vertical milling machine.
Or
(b) Design the hydraulic circuit used to control the motion of a CO2 - Ana (20)
hydraulic surface grinding machine.
4. (a) Explain the different types of pneumatic switching elements are CO1 -U (20)
there. Explain them in detail.
Or
(b) What factors should be considered when designing a CO1 -U (20)
combinational circuit?

5. (a) Explain the maintenance and troubleshooting of pneumatic CO1 -U systems in detail. (20)

Or

(b) How would you conduct a routine maintenance check on a CO1 -U pneumatic system? (20)