

BACHELOR OF TECHNOLOGY (C.B.C.S.) (2021-COURSE)
B. Tech. Sem - II MECHANICAL : WINTER- 2022
SUBJECT : MECHANICAL ENGINEERING SYSTEMS

Day : Monday

Time : 10:00 AM-01:00 PM

Date : 28-11-2022

W-24066-2022

Max. Marks : 60

N.B.

- 1) All questions are **COMPULSORY**.
- 2) Figures to the right indicate **FULL** marks.
- 3) Draw neat and labeled diagram **WHEREVER** necessary.
- 4) Assume suitable data if necessary.

Q.1 Classify boilers. Explain construction and working of Babcock and Wilcox water tube boiler with neat sketch. [10]

OR

Q.1 Classify compressors. Explain construction & working of single stage reciprocating air compressor with neat sketch. [10]

Q.2 Explain construction & working of vertical axis wind turbine with neat sketch. [10]

OR

Q.2 Write short note on hydroelectric power plant with neat sketch. [10]

Q.3 Define 'Kinematic chain'. Explain any one inversion of four bar chain. [10]

OR

Q.3 Describe Kutzbach criteria. Explain any one inversion of single slider crank chain. [10]

Q.4 Explain construction & working of Single plate clutch with neat sketch. [10]

OR

Q.4 What are the characteristics of good braking system? Explain Mechanical braking system with neat sketch. [10]

Q.5 Explain any four operations to be performed on drilling machine. [10]

OR

Q.5 Explain construction and working of grinding machine with suitable sketch. [10]

Q.6 Define 'Degree of mobility'. Classify robots. Explain any one real life application of robot. [10]

OR

Q.6 Explain the concepts of 'Pay load' and 'Repeatability' with neat sketch. [10]

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