SREE VIDYANIKETHAN ENGINEERING COLLEGE

(An Autonomous Institution, Affiliated to JNTUA, Ananthapuramu)

I B.Tech I Semester (SVEC-19) Regular Examinations December - 2019

BASIC CIVIL AND MECHANICAL ENGINEERING

[Electrical and Electronics Engineering, Electronics and Communication Engineering, Electronics and Instrumentation Engineering]

| Time: 3 h | | Answer One Question from each Unit | | Max. Marks: 60 | | |
|---------------------------------|----|--|----------|----------------|-------|------------|
| All questions carry equal marks | | | | | | |
| PART-A | | | | | | |
| | | UNIT-I | | | | |
| 1. | | Classify bricks and state its characteristics and uses of each one of them. | 12 Marks | L1 | CO1 | PO1 PO8 |
| 2. | a) | (OR) The following are the observed fore bearing of a traverse sides: AB, 70° 30′; BC,140° 15′; CD, 260° 15′; and DE, 335° 30′. Find | 6 Marks | L4 | CO1 | PO1 PO2 |
| | b) | their back bearings. Classify the surveying based upon the objective of survey. | 6 Marks | L1 | CO1 | PO1 PO2 |
| (UNIT-II) | | | | | | |
| 3. | a) | What is Dam and what are the points to be considered for selection of site for the Dam? | 6 Marks | L4 | CO2 | PO1 PO2 |
| | b) | What are points to be observed in construction stone masonry? | 6 Marks | L4 | CO2 | PO1 PO8 |
| | | (OR) | | | | |
| 4. | a) | Compare brick masonry and stone masonry. | 6 Marks | L4 | CO2 | PO1 PO8 |
| | b) | What do you understand by foundations? Draw sketches to show various types of shallow foundations. | 6 Marks | L4 | CO2 | PO1 PO8 |
| PART-B | | | | | | |
| (UNIT-III) | | | | | | |
| 5. | | Explain the working of a four stroke petrol engine with neat sketches at different stages. | 12 Marks | L2 | CO4 | PO1 |
| | | (OR) | | | | |
| 6. | | Differentiate the Impulse Turbine and Reaction Turbine with a neat sketch in brief. | 12 Marks | L2 | CO3 | PO1 |
| _ | | (UNIT-IV) | 4036.1 | | G 0 2 | D 0 4 |
| 7. | | Derive the expression for length of the cross belt. (OR) | 12 Marks | L2 | CO3 | PO1 |
| 8. | | Explain various gear trains used for power transmission with neat sketches. | 12 Marks | L1 | CO3 | PO2 |
| UNIT-V | | | | | | |
| 9. | | Explain the process of rolling and welding with applications, advantages and disadvantages. | 12 Marks | L2 | CO4 | PO1 |
| (OR) | | | | | | |
| 10. | | Explain the parts in lathe with neat sketches. | 12 Marks | L1 | CO4 | PO1 |