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Question Paper Code: 41725

B.E. / B.Tech. DEGREE EXAMINATION, MAY 2017

Second Semester

Computer Science and Engineering

14UME205 – BASIC CIVIL AND MECHANICAL ENGINEERING

(Common to EEE, ECE, EIE, ICE, MECH and IT)

(Regulation 2014)

Duration: Three hours

Maximum: 100 Marks

Answer ALL Questions.

PART A - (10 x 1 = 10 Marks)

- The process of determining the relative _____ in the vertical plane is referred as Levelling.
(a) length (b) height (c) breadth (d) angle
- Steel sections are generally made of low carbon steel or mild steel with less than 0.25 percent
(a) calcium (b) nitrogen (c) hydrogen (d) carbon
- The internal forces cause internal _____ distributed throughout the material of the body
(a) stress (b) strain (c) stress and strain (d) none of these
- The unit for strain is
(a) Newton (b) mm/mm (c) mm (d) N/mm
- Coal is used in _____ power plant.
(a) Thermal (b) Hydro electric (c) Nuclear (d) Diesel
- For emergency need of power we use _____ power plant.
(a) Gas (b) Steam (c) Diesel (d) Hydro Electric
- Boiler is used to produce
(a) liquid (b) steam (c) ice (d) gas

8. The other name for Petrol Engine is
(a) SI Engine (b) CI Engine (c) Diesel (d) Gas Turbine
9. In a vapor-compression refrigeration system, the abrupt reduction of pressure takes place in the
(a) compressor (b) condenser (c) throttle valve (d) evaporator
10. Rating of domestic refrigerator is of the order of
(a) 5 tons (b) 10 tons (c) 0.1 tons (d) 40 tons

PART - B (5 x 2 = 10 Marks)

11. Classify the types of Bricks?
12. Differentiate Substructure and Superstructure.
13. List three solid/liquid/gaseous fuels
14. Define IC Engines.
15. What is Refrigeration?

PART - C (5 x 16 = 80 Marks)

16. (a) Explain in detail about the types, classifications, and principles of surveying. (16)
- Or
- (b) Discuss in detail about the types, properties and uses of cement. (16)
17. (a) Explain the various types of foundations. (16)
- Or
- (b) Briefly explain the types of flooring. (16)
18. (a) Explain in detail about Nuclear Power plant with merits and demerits. (16)
- Or
- (b) Discuss the working principle of single acting and double acting Reciprocating pumps. (16)
19. (a) Explain in detail about four stroke petrol engines with a neat sketch. (16)
- Or
- (b) Compare Four strokes and two strokes Engine. (16)

20. (a) Explain in detail about the Principle of vapour compression and absorption system. (16)

Or

(b) Briefly explain the layout of Split type room Air conditioner with a sketch. (16)
