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 **Reg. No. :**

**Question Paper Code: 42075**

B.E. / B.Tech. DEGREE EXAMINATION, NOV 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)

1. The process of determining the relative \_\_\_\_\_\_\_ in the vertical plane is referred as Levelling.

 (a) length (b) height (c) breadth (d) angle

2. The first reading from a level station is

 (a) fore sight (b) intermediate sight (c) back sight (d) any sight

3. The internal forces cause internal \_\_\_\_\_\_ distributed throughout the material of the body

 (a) stress (b) strain (c) stress and strain (d) none of these

4. Which of the following materials is most elastic

 (a) rubber (b) plastic (c) brass (d) steel

5. Economiser is used to heat

 (a) Air (b) Feed water

 (c) Flue gases (d) All of the above

6. For emergency need of power we use \_\_\_\_\_ power plant.

 (a)Gas (b) Steam (c) Diesel (d) Hydro Electric

7. Boiler is used to produce

(a) liquid (b) steam (c) ice (d) gas

8. In internal combustion engine the essential four operations are carried out in the following sequence

(a) Suction, exhaust, power and compression

(b) Suction, compression, power and exhaust

(c) Suction, power, exhaust and compression

(d) Suction, compression, exhaust and power

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. A vapour absorption refrigerator uses \_\_\_\_\_\_\_\_\_ as a refrigerant.

 (a) Water (b) Ammonia (c) Freon (d) Aqua-ammonia

PART - B (5 x 2 = 10 Marks)

11. Classify the types of Bricks?

12. Define landscaping.

13. What is known as scavenging?

14. Define IC Engines.

15. Define “ton of refrigeration”.

PART - C (5 x 16 = 80 Marks)

16. (a) State the properties and uses of sand, cement, concrete and steel sections. (16)

Or

(b) Discuss in detail about the types, properties and uses of cement. (16)

17. (a) Discuss in detail about the different types of foundations. (16)

Or

(b) Briefly explain the types of flooring. (16)

18. (a) Draw a neat layout of a typical steam power plant and explain the various circuits involved in it. (16)

Or

 (b) Explain the working method of a steam power plant with a neat sketch and mention its

 merits and demerits. (16)

19. (a) Explain the construction and working principle of any one of the boiler with neat sketches. (16)

 Or

(b) Compare Four strokes and two strokes Engine. (16)

20. (a) With the help of flow diagram explain the principle of working of a vapour compression refrigeration system. Compare vapour absorption refrigeration with vapour compression refrigeration. (16)

Or

(b) With a neat sketch, explain in detail the working of a window type room air conditioner.

 (16)