## **Question Paper Code: 42705A**

B.E. / B.Tech. DEGREE EXAMINATION, DEC 2020

Second Semester

Computer Science and Engineering

## 14UME205 - BASIC CIVIL AND MECHANICAL ENGINEERING

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

(Regulation 2014)

Duration: 1.15 hrs

Maximum: 30 Marks

PART A -  $(6 \times 1 = 6 \text{ Marks})$ 

## (Answer any six of the following questions)

| 1. | The first reading from a level station is                                |                 |                        |                 |                |  |  |
|----|--|-----------------|------------------------|-----------------|----------------|--|--|
|    | (a) Fore sight   | (b) Intermediat | te sight               | (c) Back sight  | (d) Any sight  |  |  |
| 2. | Limestone is a   | _ rock          |                        |                 |                |  |  |
|    | (a) Igneous  | (b) Sedimentary | У                      | (c) Metamorphic | (d) Stratified |  |  |
| 3. | The members which support covering material of a sloping roof are        |                 |                        |                 |                |  |  |
|    | (a) Rafters  | (b) Purlins     |                        | (c) Battens     | (d) Struts     |  |  |
| 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. | An impulse turbine is u  | sed for         |                        |                 |                |  |  |
|    | <ul><li>(a) Low head of water</li><li>(c) Medium head of water</li></ul> |                 | (b) High head of water |                 |                |  |  |
|    |  |                 | (d) High discharge     |                 |                |  |  |

7. The working cycle in case of four stroke IC engine is completed in following number of revolutions of crankshaft.

| (a) ½ | (b) 1 | (c) 2 | (d) 4 |
|-------|-------|-------|-------|
|       |       |       |       |

8. Which device is the accessory of boiler? (c) Blow-off cock (b) Economiser (a) Steam stop valve (d) Fusible plug 9. Which one is not the property of good refrigerant? (a) Low freezing point (b) High boiling point (c) Low viscosity (d) High critical pressure 10. The value of COP in vapour compression cycle is (a) Always more than unity (b) Always less than unity (c) Equal to unity (d) None of the above PART - B (3 x 8= 24 Marks)

## (Answer any three of the following questions)

| 11. | Describe a metric chain with a neat sketch.                            | (8) |
|-----|--|-----|
| 12. | Explain various kinds of rubble masonry with neat sketches.            | (8) |
| 13. | Draw the layout of a steam power plant, explain its working principle. | (8) |

- 14. Explain the working of four stroke petrol engine with neat sketch. (8)
- 15. Explain with a neat sketch the construction and working of vapour compression refrigeration system. (8)