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Question Paper Code: 52708

B.E. / B.Tech. DEGREE EXAMINATION, MAY 2018

Second Semester

Mechanical Engineering

15UME208 - BASIC CIVIL AND MECHANICAL ENGINEERING

(Common to Electrical and Electronics Engineering)

(Regulation 2015)

Duration: Three hours

Maximum: 100 Marks

Answer ALL Questions

PART A - (10 x 1 = 10 Marks)

1. The first sight taken on a leveling staff held at a point of known elevation is called CO1- R
(a) Bench Mark (b) Back Sight (c) Fore sight (d) Change Point
2. Granite is a CO1- R
(a) Igneous rock (b) Sedimentary rock
(c) Metamorphic rock (d) All of the above
3. The part of the structure which is above the ground level is called CO2- R
(a) Foundation (b) Plastering (c) Planning (d) Superstructure
4. The horizontal distance between the vertical joints of successive brick course is called CO2- R
(a) Header (b) Bed (c) Lap (d) Stretcher
5. The power plant using working medium as water is called CO3- R
(a) Hydro power plant (b) Steam power plant
(c) Gas power plant (d) Generator

- (b) A rod 125cm long and of diameter 2cm is subjected to an axial force of 20 KN. If the modulus of elasticity of the rod is $2 \times 10^5 \text{ n/mm}^2$. Determine
(i) Stress
(ii) Strain and
(iii) Elongation of the rod CO2- App (16)
18. (a) With the aid of a general layout, explain the working of different circuits of a thermal power plant. CO3- Ana (16)
- Or
- (b) Give a schematic layout of a storage type hydro-electric power plant and explain the function of each component of the plant. CO3- Ana (16)
19. (a) Describe the principal parts and functions of a Four Stroke Diesel engine with neat sketch. CO4- U (16)
- Or
- (b) Discuss the principal parts and functions of a Two Stroke Petrol engine with neat sketch CO4- Ana (16)
20. (a) Explain the principle and working of the vapour absorption refrigeration system. CO5- U (16)
- Or
- (b) With the neat sketch explain the layout of a window room air conditioning. CO5- U (16)

