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16/12/15 AN

Reg. No. :

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Question Paper Code : 21646

B.E./B.Tech. DEGREE EXAMINATION, NOVEMBER/DECEMBER 2015.

Second Semester

Electrical and Electronics Engineering

GE 2152/080510002/GE 1151 A/ME 26/10111 CE 206 — BASIC CIVIL AND
MECHANICAL ENGINEERING

(Common to Electronics and Communication Engineering, Biomedical Engineering,
Electronics and Instrumentation Engineering, Computer Science and Engineering,
Instrumentation and Control Engineering and Information Technology)

(Regulations 2008/2010)

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. What are the two basic principles of survey?
2. The B.S. reading at A is 2.355 m and the foresight reading at B is 1.505 m. Find the level difference between A and B.
3. Where do you provide the lintel in a building? And name the different types of lintels?
4. What are the purposes of plastering? List the various requirements of a good plaster.
5. Distinguish between open and close cycle gas turbine.
6. Draw the head Vs Discharge characteristics curve of a centrifugal pump.
7. With respect to compression ratio differentiate between petrol and diesel engines?
8. What are the various accessories employed in a boiler?
9. What are the differences between window and split type room air conditioner?
10. What is the difference between a refrigerator and a heat pump?

PART B — (5 × 16 = 80 marks)

11. (a) Which type of area is best suited for chain survey? Give reasons and explain principle for the same. (16)

Or

- (b) (i) List the various application of different types of bricks. (8)
(ii) List the various tests for sand and explain them briefly. (8)
12. (a) (i) What are the objectives of foundation? (8)
(ii) What are the loads acting on foundation? Explain them in detail. (8)

Or

- (b) (i) What are the requirements of good flooring? (8)
(ii) Explain any two types mortars used for flooring. (8)
13. (a) With a neat sketch explain hydro electric power plant. (16)

Or

- (b) (i) What are the differences between reciprocating pump and centrifugal pump? (8)
(ii) Distinguish between single acting and double acting reciprocating pump. (8)
14. (a) With the help of P-V diagram and port timing diagram explain two stroke petrol engine. (16)

Or

- (b) With a neat sketch explain a fire tube boiler. (16)
15. (a) With a neat sketch explain vapour absorption system. (16)

Or

- (b) What are the requirements of comfort air conditioning? Explain the same with the help of standard data. (16)