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Question Paper Code : 42641

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

Second Semester

Electrical and Electronics Engineering

GE 2152 – BASIC CIVIL AND MECHANICAL ENGINEERING

**(Common to Electronics and Communication Engineering, Biomedical Engineering, Computer Science and Engineering, Electronics and Instrumentation Engineering, Instrumentation and Control Engineering, Information Technology and Medical Electronics Engineering)
(Regulations 2008)**

Time : Three Hours

Maximum : 100 Marks

Answer ALL questions

(Codes/Tables/Chars to be permitted, if any, may be indicated)

PART – A

(10×2=20 Marks)

1. List out the major primary types of surveying.
2. State any two types of cement and concrete.
3. What are the remedial measures for the failure of foundation ?
4. List out the different types of dam.
5. What is the use of surge tank in hydro power plant ?
6. List the advantages of Reciprocating pump.
7. What is meant by scavenging process ?
8. What are the functions of boilers ?
9. Write the different kinds of heat transfer modes with examples.
10. List the types of Air conditioner.



PART – B

(5×16=80 Marks)

11. a) Explain with neat sketch 20 m chain and principles of chain surveying. (16)
(OR)
- b) What are the requirements of good building stone ? Discuss about some important varieties of building stones. (16)
12. a) i) List out the elements of a building and basic requirements of a building respectively. (6)
ii) Discuss any 3 classification of piles, according to materials used. (10)
(OR)
- b) Discuss in detail about components of bridge and types of bridge with diagrams wherever needed respectively. (16)
13. a) Explain the working of a thermal power plant with a neat sketch. (16)
(OR)
- b) i) With the help of a neat sketch, explain the working of Reciprocating Pump. (10)
ii) Compare between Impulse turbine and Reaction turbine. (6)
14. a) Describe the principal parts and functions of a Four Stroke Diesel engine with neat sketch. (16)
(OR)
- b) i) Describe the principal parts and functions of any one high pressure boiler with neat sketch. (12)
ii) Compare between S.I. Engine and C.I. Engine. (4)
15. a) With a neat layout, briefly explain about the construction and working principle of a vapor compression refrigeration system. (16)
(OR)
- b) List few application of air conditioning system and explain with a neat sketch the layout of a window air conditioning with merits and demerits. (16)