TED (10)–1004 Reg. No. .....

(REVISION—2010) Signature .....

FIRST SEMESTER DIPLOMA EXAMINATION IN ENGINEERING/TECHNOLOGY OCTOBER, 2012

GENERAL ENGINEERING

(Common–except DCP and CABM)

[*Time* : 3 hours

(Maximum marks : 100)

PART—A

Marks

I Answer the following questions in one or two sentences. Each question carries 2 marks.

1. List the different types of sand.
2. Give any two uses of steel in building works.
3. What is the function of differential ?
4. Define impedance.
5. Give two applications of 3G. (5×2=10)

PART—B

II Answer *any five* of the following. Each question carries 6 marks.

1. Explain characteristics of good brick.
2. Draw the line diagram of the power transmission system in an automobile.
3. Draw the diagram of steam power plant and explain its working.
4. What are the different types of cement used ?
5. Explain with circuit diagram and vector diagram purely capacitive circuit.
6. Explain about Earthing.
7. List the applications of LED. (5×6=30)

PART—C

(Answer *one* full question from each unit. Each question carries 15 marks.)

UNIT—I

III (a) Explain the different types of Bricks. 8

(b) Write the essential requirements of a good foundation. 7

OR

Marks

IV (a) Write short note on Ashlar masonry. 5

(b) Explain about English bond with diagram. 5

(c) What are the instruments used in chain surveying ? 5

UNIT—II

V (a) With the help of a diagram explain working of Hydro electric power plant. 8

(b) Compare Petrol Engine and Diesel Engine. 7

OR

VI (a) Explain the working of two stroke engine. 10

(b) Explain the working of diesel engine Power plant. 5

UNIT—III

VII (a) Explain the system of distribution of electrical energy from the supply mains to the consumers circuit with diagram. 10

(b) Write short note on earth leakage circuit breaker. 5

OR

VIII (a) Calculate the reactance of a 4μF capacitor at a frequency at 50Hz. 5

(b) Explain the main characteristics parallel circuits. 5

(c) A 100 W lamp is connected to 240 V supply. How much current does it drawn from the supply ? How much electric energy is used by the lamp in 6 hrs ? 5

UNIT—IV

IX (a) Explain about compact fluorescent lights. 5

(b) Draw the diagram of full wave rectifier circuit and explain its working. 10

OR

X (a) Draw the block diagram of DC regulated power supply system and explain its working. 10

(b) Write note on applications of micro controllers. 5