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## **NEW SCHEME**

## Eighth Semester B.E. Degree Examination, May 2007 Electrical & Electronic Engineering

## Industrial Management, Electrical Estimation and Economics

Time: 3 hrs.]

Note: Answer any FIVE full questions.

[Max. Marks:100]

a. Explain Taylor's principles of management.

(06 Marks)

b. Compare traditional management with scientific management.

(08 Marks)

c. Is management an art or science? Explain.

(06 Marks)

a. Briefly explain each function of management.

(10 Marks)

- State the types of organizations and explain their working, highlighting its merits and demerits.
   (10 Marks)
- 3 a. How are the employees selected and placed in jobs? Describe the procedure for the selection and placement of workers. (10 Marks)

b. Explain how the industrial disputes arise and how are they settled.

(10 Marks)

4 a. Explain Maslow's hierarchy of needs and satisfaction of needs.

(10 Marks)

- b. What are the forms and characteristics of automation? Explain its advantages and disadvantages. (10 Marks)
- a. Explain the terms PERT and CPM and also their applications, advantages and disadvantages.
   (10 Marks)
  - b. Prepare an estimate of earthing using GI pipe for 1.50 mts assuming suitable present market rates. Draw the approximate figure. (10 Marks)
- 6 a. The cost of an asset is Rs.10000/-, it has a salvage value of Rs.1000/- at the end of 5 years. Evaluate its book value at the end of 3<sup>rd</sup> year, taking depreciation by:
  - i) Straight line method.
  - ii) Reducing balance method.
  - iii) Sum of digits method.

(10 Marks)

b. Explain the kinds of depreciation in detail.

(10 Marks)

- 7 A small workshop of inner dimensions  $10 \text{ m} \times 8 \text{ m}$ , has to be equipped with the following machines:
  - 1 HP, 400 V; 3 ph motor for drilling machine.

½ HP, 230 V; 1 ph motor for grinding machine.

3 HP, 400 V, 3 ph motor for lathe machine.

5 KVA, 400 V, Welding transformer.

Assume efficiency as 85% and power factor of 0.8 for all machines.

Draw the working diagram for electrical connections starting from main switch.

Prepare the estimate of cost for the power distribution arrangement.

(20 Marks)

- 8 Write short notes on any four:
  - a. Break Even Analysis.
- b. Inventory control.
- c. Plant layout.
- d. S.Q.C
- e. Theory X and Y.

  f. Henry Fayol's principles of management. (20 Marks)

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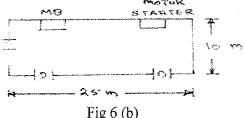
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## Eighth Semester B.E. Degree Examination, May/June 08 Industrial Management, Electrical Estimation and

**Economics** Time: 3 hrs. Max. Marks:100 Note: Answer any FIVE full questions. a. Trace the development of Industrial management. (04 Marks) b. Explain the works of Taylor. Why his principles were rejected? (08 Marks) c. Explain the characteristics, advantages and disadvantages of the following types of organization. i) Line type ii)Line – staff type (08 Marks) a. Explain the following functions of management 2 i) Planning ii) Organizing iii) Directing iv) Controlling (12 Marks) b. Write briefly the skills of a manager at various levels of an organization. (04 Marks) c. Discuss Maslow's hierarchy of needs. (04 Marks) a. Discuss the employer and employees relationship. 3 (06 Marks) b. Explain the different methods of training provided to improve the skills of operators and technicians. (08 Marks) What are the causes and effects of industrial disputes? (06 Marks) a. Discuss briefly the different methods of plant lay – out. 4 (08 Marks) b. Bring out the comparison between PERT and CPM. (06 Marks) c. Explain SQC. What are its advantages? (06 Marks) 5 a. What is the necessity of earthing? With a neat diagram explain plate earthing. (08 Marks) b. An open hall of 15 m  $\times$  6 m  $\times$  4.5 m height is to be fitted with 10 lamps of 100 Watt each and 4 ceiling fans of 60 Watt each. Assume suitable supply voltage. i) Decide the number of sub - circuits ii) Decide the size of PVC cable to be used between meter board and main distribution board. iii) Decide the size of PVC cable to be used for circuit wiring iv) What are the assumptions made? a. Explain how the ratings of cables and fuse wires for wiring a mode installation are 6 determined. (06 Marks) b. A 10 HP, 415 volt, 3 – phase, 50 Hz Induction motor is to be installed in a workshop, the plan of which is shown in fig 6 (b). Show the layout of the wiring and estimate the quanity of materials required. The wiring is to be surface conduit. Assume  $\eta$  as 85% at 0.8 pf (lag).



(14 Marks)

a. Explain the causes of depreciation.

(06 Marks)

- b. The original cost of an equipment is Rs. 8000. It has a salvage value of Rs. 500 at the end of 8 years. Estimate its book value at the end of 5 years by
  - i) Straight line method ii) Sinking fund method, assuming rate of interest as 6%
  - ii) Reducing balance method.

(10 Marks)

- c. Explain the term Inventory. Write a brief note on direct inventory and indirect inventory. (04 Marks)
- Write short notes on any four of the following 8
  - a. Works of Gilberth; b. Theory of X and y; c. Automation; d. Conduit Wiring;
  - e. Break Even analysis.

(20 Marks)