

(Following Paper ID and Roll No. to be filled in your Answer Book)

PAPER ID : 4079

Roll No.

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B.Tech.

FOURTH SEMESTER EXAMINATION, 2005-2006

INDUSTRIAL ENGINEERING

Time : 3 Hours

Total Marks : 100

- Note :**
- Answer **ALL** questions.
 - All questions carry equal marks.
 - In case of numerical problems assume data wherever not provided.
 - Be precise in your answer.

- Attempt **any two** parts of the following : (10x2=20)
 - What is productivity ? Describe various kind of partial productivity measurements.
 - What is production ? Explain a production system with the help of an input -output model.
 - Explain briefly the concept of work sampling with suitable example.
- Attempt **any two** parts of the following : (10x2=20)
 - Explain principles of plant layout.
 - Describe the functions of production, planning and control.
 - Write short note on JIT.

3. Attempt *any two* parts of the following : (10x2=20)

- (a) Draw Break-Even chart and explain :
 - (i) margin of safety.
 - (ii) angle of incidence.
- (b) An engine lathe was purchased for Rs 20,000. Its useful life was estimated as ten years & salvage value as Rs 5000. Using diminishing balance method, calculate the depreciation rate. Also, estimate depreciation fund at the end of two years.
- (c) Enumerate the specific objectives of maintenance in an organization. How is preventive maintenance better than corrective maintenance.

4. Attempt *any two* parts of the following : (10x2=20)

- (a) What are the objectives of holding inventory ? Describe how inventory is classified in a manufacturing organization.
- (b) Discuss steps in construction of \bar{X} and R chart.
- (c) Explain double sampling plan.

5. Attempt *any two* parts of the following : (10x2=20)

- (a) Define organization. Differentiate between line organization and functional organization.
- (b) Explain Taylor's differential wage incentive plan.
- (c) What is job evaluation ? Describe point factor method for job evaluation.

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