PRODUCTION MANAGEMENT (SEMESTER - 4)

CS/BBA (H), BIRM, BSCM/SEM-4/BBA-401/09



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| 1. | Signature of Invigilator | | | | | | | | A Parent | Y Enrain | (p. Xnd EX | alama . | 7 | | |
| 2. | Signature of the Officer-in-Charge | . No. | | | | | | | | | | | | | |
| | Roll No. of the Candidate | | | | | | | | | | | | | | |
| | CS/BBA (H), E | - | BSC | C M / | SEI | М-4 | :/ B] | - – ВА | -40 | 1/0 | 09 | | | | _ |

ENGINEERING & MANAGEMENT EXAMINATIONS, JUNE – 2009 PRODUCTION MANAGEMENT (SEMESTER - 4)

Time: 3 Hours] [Full Marks: 70

INSTRUCTIONS TO THE CANDIDATES:

- This Booklet is a Question-cum-Answer Booklet. The Booklet consists of 32 pages. The questions of this 1. concerned subject commence from Page No. 3.
- 2. In Group - A, Questions are of Multiple Choice type. You have to write the correct choice in the box provided against each question.
 - b) For Groups - B & C you have to answer the questions in the space provided marked 'Answer Sheet'. Questions of Group - B are Short answer type. Questions of Group - C are Long answer type. Write on both sides of the paper.
- Fill in your Roll No. in the box provided as in your Admit Card before answering the questions. 3.
- 4. Read the instructions given inside carefully before answering.
- You should not forget to write the corresponding question numbers while answering. 5.
- Do not write your name or put any special mark in the booklet that may disclose your identity, which will 6. render you liable to disqualification. Any candidate found copying will be subject to Disciplinary Action under the relevant rules.
- 7. Use of Mobile Phone and Programmable Calculator is totally prohibited in the examination hall.
- You should return the booklet to the invigilator at the end of the examination and should not take any 8. page of this booklet with you outside the examination hall, which will lead to disqualification.
- 9. Rough work, if necessary is to be done in this booklet only and cross it through.

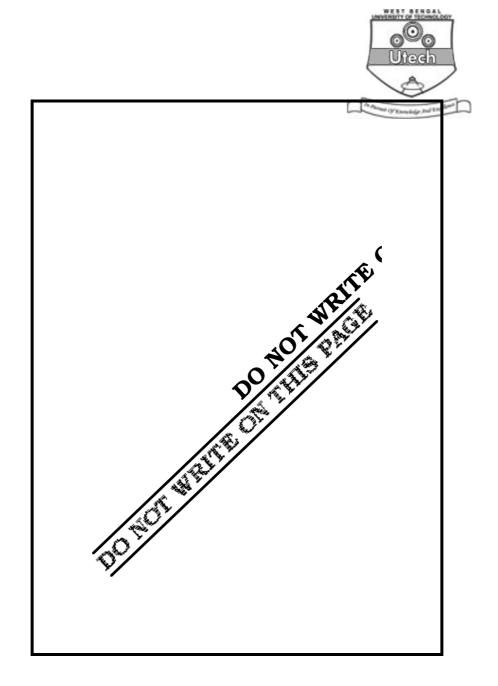
No additional sheets are to be used and no loose paper will be provided

FOR OFFICE USE / EVALUATION ONLY Marks Obtained Group - A Group - B Group - C Examiner's Question **Total** Number Marks Signature Marks **Obtained**

| Head-Examiner | Co-Ordinator/Scrutineer |
|---------------|-------------------------|

4428 (04/06)







PRODUCTION MANAGEMENT - 2009 SEMESTER - 4

Time: 3 Hours [Full Marks: 70

GROUP - A

(Multiple Choice Type Questions)

| l . | Choo | se the | e correct alternatives for any te | n of th | ne following : 10 | × 1 = 10 | | |
|-----|------|--------|--------------------------------------|----------|------------------------------|----------|--|--|
| | i) | Fitne | ess for use is known as | | | | | |
| | | a) | Quality | b) | Quality circle | | | |
| | | c) | TQM | d) | Kaizen. | | | |
| | ii) | Whic | ch of the following ratios is | used | to assess the efficiency of | the PPC | | |
| | | Depa | artment? | | | | | |
| | | a) | Total assets turnover ratio | b) | Interest coverage ratio | | | |
| | | c) | Debt-equity ratio | d) | Employee turnover ratio. | | | |
| | iii) | Whic | ch one of the following is not a | fixed o | eost ? | | | |
| | | a) | Rent | b) | Insurance | | | |
| | | c) | Manager's salaries | d) | Material. | | | |
| | iv) | Stati | stical quality control is done to | | | | | |
| | | a) | prevent any defective product | from | going out of the factory | | | |
| | | b) | observe the trend of product quality | | | | | |
| | | c) | initiate corrective action if qua | ality tr | end shows an adverse pattern | | | |
| | | d) | none of these. | | _ | | | |

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| v) | Cont | inuous improvement is the conc | ept of | LEWIS DELLA CONTROL CONT | |
|-------|-------|-----------------------------------|---------|------------------------------|-----------|
| | a) | Quality | b) | Quality circle flech | |
| | c) | TQM | d) | Kaizen. | |
| vi) | Time | allowed to an operator to ca | rry ou | it as specified task under | specified |
| | cond | ition and at the defined level of | perfori | nance is called | |
| | a) | observed time | b) | normal time | |
| | c) | standard time | d) | none of these. | |
| vii) | PDC | A stands for | | | |
| | a) | plan, do, check & act | b) | prepare, do, continue & acti | on |
| | c) | progress, do, check & act | d) | none of these. | |
| viii) | "Cos | t of Quality" is the | | | |
| | a) | cost of creating a quality produ | ıct | | |
| | b) | cost of maintaining quality inst | rumen | ts | |
| | c) | cost of not creating a quality pr | roduct | | |
| | d) | all of these. | | | |
| ix) | For c | continuous process of material h | andlin | g, equipment used is | |
| | a) | crane | b) | lift | |
| | c) | dumpers | d) | conveyor. | |
| x) | PER | Γ stands for | | | |
| | a) | Program Evaluation Review Tec | chniqu | e | |
| | b) | Program Evaluation Renew Tec | hnique | • | |
| | c) | Project Evaluation Review Tech | nique | | |
| | d) | none of these. | | | |
| | | | | | |



| xi) | The | control chart which is used in | a situ | ation where fraction defect | ives are the | | |
|-------|---|----------------------------------|----------|------------------------------|-------------------------------|--|--|
| | criteria for acceptance or rejection is called | | | | | | |
| | a) | \overline{X} -chart | b) | R-chart | | | |
| | c) | P-chart | d) | C-chart. | | | |
| xii) | Sta | ndard time is equal to | | | | | |
| | a) | normal time | b) | average time | | | |
| | c) | normal time + allowance | d) | average time + allowance. | | | |
| xiii) | Wh | ich one among the following is a | fixed 1 | type of material handling sy | stem ? | | |
| | a) | Trolleys | b) | Conveyors | | | |
| | c) | Industrial trucks | d) | Wheel barrow. | | | |
| xiv) | PPC | C Department helps the marketin | ng depa | artment in relation to | | | |
| | a) | getting a new customer | | | | | |
| | b) formulating the delivery schedule of the order | | | | | | |
| | c) convincing an old customer | | | | | | |
| | d) | correcting the dealings of the | marke | ting department. | | | |
| | | GROU | P – B | | | | |
| | | (Short Answer T | ype Q | uestions) | | | |
| | | Answer any three of th | e follov | ving questions. | $3 \times 5 = 15$ | | |
| a) | | at are the objectives of scient | cific ma | anagement as explained b | y Frederick $2\frac{1}{2}$ | | |
| b) | Def | ine cyclegraphs and chronocycle | egraph | s. | $2\frac{1}{2}$ | | |
| Wha | t are | the differences between hoist | s and | cranes ? Differentiate betw | veen gravity | | |
| | | er conveyors. | | | $2\frac{1}{2} + 2\frac{1}{2}$ | | |

2.

3.



- 4. What do you mean by 'work sampling'? Point out the advantages and limitations of 'work sampling'. 2 + 3
- 5. What do you mean by Work Study and Method Study? Discuss

 $2\frac{1}{2} + 2\frac{1}{2}$

6. Write short notes on any *two* of the following :

 $2\frac{1}{2} + 2\frac{1}{2}$

- i) Quality Assurance
- ii) Six Sigma
- iii) Therbligs
- iv) Kaizen Philosopy
- v) Motion Study.

GROUP - C

(Long Answer Type Questions)

Answer any *three* of the following questions.

 $3 \times 15 = 45$

- 7. a) What are the objectives of 'Method Study'?
 - b) Discuss the various steps in Method study procedure.
 - c) Point out its advantages.

3 + 8 + 4

8. Considering the following data, apply Rate of Return (ROR) method to select the best site for a plant :

| Factors | Site 1 | Site 2 | Site 3 |
|--------------------|----------|----------|----------------|
| | (Rs.) | (Rs.) | (Rs.) |
| Land | 50,000 | 75,000 | 1,00,000 |
| Building | 1,50,000 | 1,25,000 | 1,00,000 |
| Inbound logistics | 18,000 | 22,000 | 18,000 |
| Outbound logistics | 22,000 | 18,000 | 25,000 |
| Raw material | 60,000 | 80,000 | 55,000 |
| Electricity | 10,000 | 15,000 | 10,000 |
| Water | 30,000 | 25,000 | 35,000 |
| Salary | 45,000 | 50,000 | 40,000 |
| Expected sales | 2,50,000 | 3,00,000 | 2,50,000 |



9. What is Work Sampling? What are its merits? A group of 10 workmen working 8 hours per day (one shift) on a group of engine lathes produced 320 pieces of a component. During the study, it was observed that workmen were idle for 20% of the total available time and 80% of the time they worked at an average performance of 75%. Calculate Standard Time for the job assuming (i) the operation to be completely manual, (ii) the workmen are entitled to 20% allowance for this type of work.

3 + 4 + 8

- 10. a) Define 'cost of quality'.
 - b) Explain the three categories of cost of quality.
 - c) Write a short note on ISO 9000 series of standards on quality management systems. 3 + 6 + 6
- 11. a) What are the objectives of Materials Handling system?
 - b) Discuss the factors to be considered for selection of the material handling equipment. 6 + 9
- 12. What is Time Study? Enumerate the steps in conducting Time Study. What is meant by Standard Time? Discuss the different types of allowances considered in setting the standard time. 2 + 5 + 2 + 6

END