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C14-M-403

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BOARD DIPLOMA EXAMINATION, (C-14)
SEPTEMBER/OCTOBER - 2020
DME—FOURTH SEMESTER EXAMINATION
INDUSTRIAL ENGINEERING

Time : 3 hours]

[Total Marks : 80

PART—A

3×10=30

- Instructions :** (1) Answer **all** questions.
(2) Each question carries **three** marks.
(3) Answers should be brief and straight to the point and shall not exceed *five* simple sentences.

1. What are the objectives of method study?
2. What is the role of work study in raising the productivity?
3. List three advantages of PMTS.
4. Define activity sampling.
5. Write about rating scale.
6. Define the following :
 - (a) Job analysis
 - (b) Job description
 - (c) Job specification

- * 7. Write about Taylor's piece-rate system.
8. Define incentive. List out two objectives of incentive plans.
9. What is the purpose of \bar{X} and R charts?
10. Differentiate control charts and sampling plans.

PART—B

10×5=50

Instructions : (1) Answer *any five* questions.

(2) Each question carries **ten** marks.

(3) Answers should be comprehensive and the criterion for valuation is the content but not the length of the answer.

11. Explain the following :

(a) Flow diagram

(b) String diagram

12. Discuss briefly the role of work study in increasing industrial productivity.

13. Describe the procedure to be followed for 'Time study' by stop watch method.

* 14. (a) Write the procedure for work sampling study.

(b) Write a short note on Rowan premium plan.

15. (a) Explain Halsey premium incentive plan. List out two advantages of the plan.

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(b) The standard time for a job is 8 hours and the hourly rate is ₹ 15. Compute—

(i) total wage of the worker

(ii) earning of the worker per hour, if they completed the job in 6 hours

By Rowan incentive plan.

16. Explain any two methods of job evaluation.

17. (a) Compare between floor inspection and centralized inspection.

(b) What are the advantages and disadvantages of sampling inspection?

18. The daily production in machine shop is 1000 items. These items are inspected by Go and No gauge. A sample of 100 is inspected daily, for 10 days. The samples are taken at random. Compute the control limit for—

(a) *P*-chart

(b) *np*-chart

and draw the charts

<i>Date</i>	1	2	3	4	5	6	7	8	9	10
<i>Rejection</i>	2	10	6	18	16	14	15	12	8	6

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