4479

BOARD DIPLOMA EXAMINATION, (C–14)
MARCH/APRIL—2018
DME—FOURTH SEMESTER EXAMINATION

INDUSTRIAL ENGINEERING

Time : 3 hours]   [*Total Marks* : 80

PART—A   10×3=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.

(4) SQC tables are permitted.

1. Define work study.

2. List out the symbols used in constructing flow process charts.

3. Define performance rating.

4. Pilot study showed the percentage of occurrence of an activity as 50%. Determine the number of observations for 95% confidence level and an accuracy of (+/-)2% .

5. Define nominal wage and real wage.

6. Write down the difference between financial and non-financial incentives.

7. Define job analysis and job specifications.

8. List out any three advantages of ranking method.

9. Define the term Quality assurance.

10. What is Quality control and list any three objectuves.

PART—B 5×10=50

Instructions : (1) Answer any *five* questions and each question carries **ten** marks.

(2) Answer should be comprehensive and the criteria for valuation are the content but not the length of the answer.

(3) Use appropriate tables if necessary

11. Explain the objectives of study.

12. List out the various therbligs used for a constructing SIMO chart with appropriate symbol and abbreviation.

13. Explain the different types of allowances considered in calculating standard time for an element.

14. *(a)* Explain skill and effort rating in performance rating.

(b) List out all the financial incentives plans.

15. There are five workers producing electrical switches. The standard daily rate is Rs. 8 per worker and the standard output is 40 switches. Calculate their daily earning by Emerson's efficiency plan if they produce 24, 32, 36, 40 and 48 switches respectively.

16. Explain the grading method of job evaluation. List out any two advantages and disadvantages.

17. Explain the differences between variable and attribute charts.

18. In a double sampling plan N=5000, n1=100, c1=0, n2=100 and c2=1. *(i)* Use Poisson's table to compute the Pa of 1% defective lot, *(ii)* Calculate AOQ

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