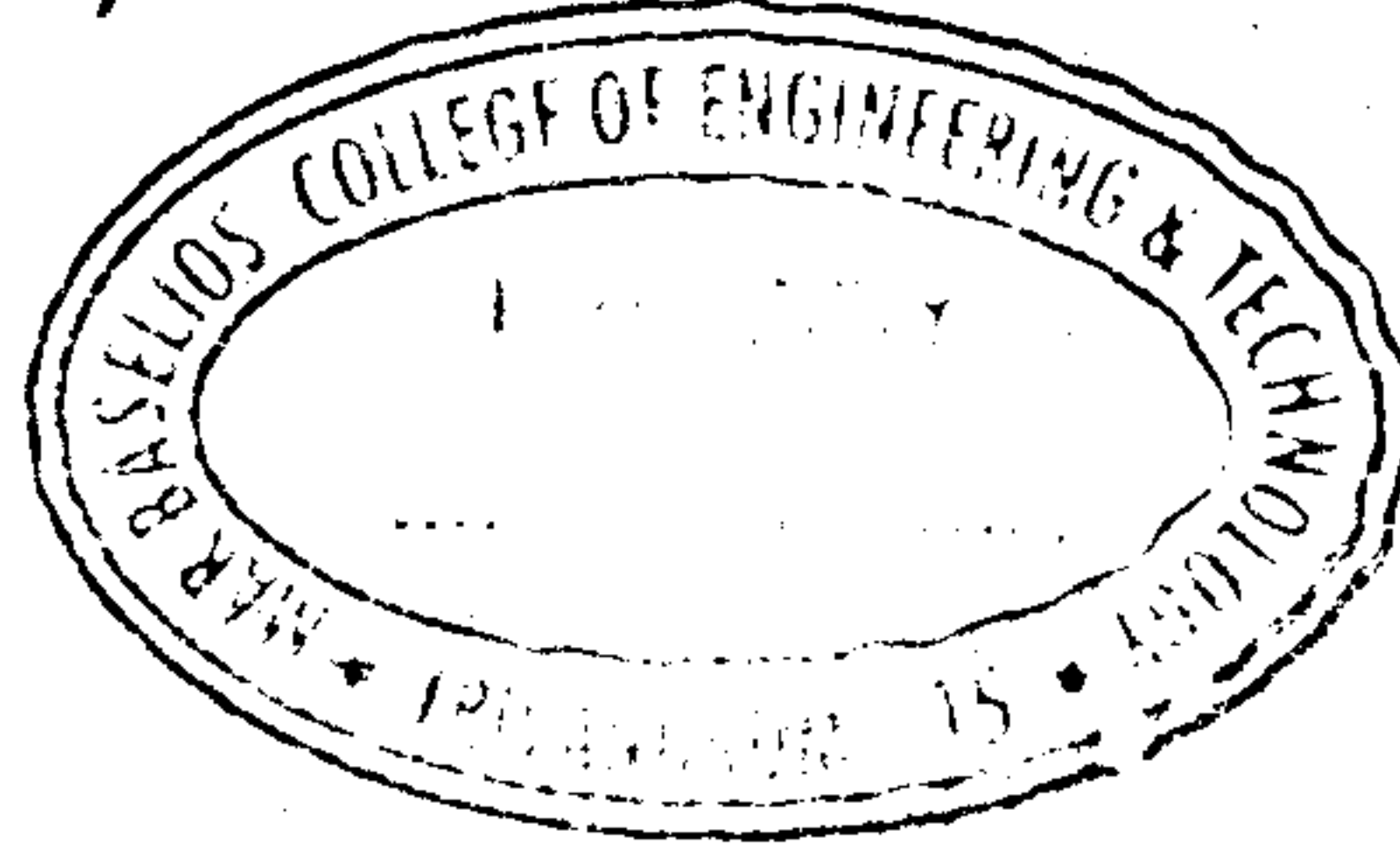


Reg. No. :

Name :



Seventh Semester B.Tech. Degree Examination, July 2019

(2013 Scheme)

13.706.1 : PLANT ENGINEERING AND MAINTENANCE (MPU)

Time : 3 Hours

Max. Marks : 100

Instructions :

1. Answer **all** the questions from PART-A. Each questions carries **2** marks.
2. Answer **one** question from each Module in PART-B. **Each** question carries **20** marks.

PART – A

1. What is the effect of gas on wear?
2. Define fatigue.
3. What are semifluid lubricants?
4. Give examples of lubricant additives.
5. Define reliability.
6. What is availability?
7. What is sudden obsolescence?
8. What is preventive maintenance?
9. Define RCM.
10. State the benefits of TPM.

PART – B

Module – I

11. Explain the various theories of wear. 20
12. (a) Define the general properties and applications of synthetic lubricants. 10
(b) Discuss any two mechanisms of lubrication. 10

Module – II

13. (a) Explain chance failure with examples. 10
(b) Discuss maintainability. 10
14. (a) Describe wear out failure. 10
(b) Two gas stoves are connected in series to a common gas cylinders of reliability 0.98. The reliability of tube, knob and burner arc are 0.98, 0.95 and 0.92 respectively. Find the system reliability. Find also the system reliability when the stoves are connected in series. 10

Module – III

15. (a) Explain gradual obsolescence. 10
(b) Explain MAPI method. 10
16. (a) Discuss the causes of deterioration and obsolescence. 10
(b) Explain scheduled maintenance. 10

Module – IV

17. (a) Describe safety engineering. 10
(b) Explain CBM. 10
18. (a) Discuss the causes of industrial noise. 10
(b) Discuss DMS. 10

