

KATHMANDU UNIVERSITY
End Semester Examination
July/August, 2017

Marks Scored:

Level : B.E.
Year : IV

Course : MEPP 408
Semester : II

Exam Roll No. : Time : 30 mins.

F. M. : 20

Registration No. :

Date JUL 21 2017

SECTION "A"
[20 Q. × 1=20 marks]

Attempt *ALL* the questions. (Select and mark [X] for most appropriate answer)

1. The following is not a classification of maintenance
 Corrective maintenance Timely maintenance
 Scheduled maintenance Preventive maintenance
2. A systematic approach for maintenance is
 Problem – Cause – Diagnosis – Rectification
 Problem– Diagnosis – Cause – Rectification
 Problem – Measure – Diagnosis – Rectification
 Problem– Diagnosis – Measure – Rectification
3. Total Productive maintenance (TPM) approach has the potential of providing almost a seamless integration between
 Production and Quality Quality and Maintenance
 Production and Maintenance Quality and Production
4. Which type of maintenance is not directly included in the total maintenance cost, but might be a component of total cost?
 Preventive Breakdown Predictive Design out
5. Belt of an electric motor is broken, it needs
 Corrective maintenance Scheduled maintenance
 Preventive maintenance Timely maintenance
6. Scheduled maintenance is _____ between breakdown maintenance and the preventive maintenance.
 Joint Compromise Bridge In
7. Which test can be performed without skilled labour?
 Dye penetrant testing Visual testing
 Ultrasonic testing Magnetic particle test
8. Scheduling
 prescribes the sequence of operations to be followed
 determines the programme for the operations
 is concerned with starting of processes
 regulates the progress of job through various processes
9. A sleeve bearing of inch dimensions is numbered as XXYY-ZZ, using the SAE numbering system. What does YY represents.
 Internal diameter in sixteenths of inch Internal diameter in inch
 External diameter in sixteenths of inch External diameter in inch

10. The chain drive is same as gear drive.
 Yes
 No, it is intermediate between belt and gear drive
 It is superior to gear drive
 It is inferior to gear drive
11. Galling is a stick slip phenomenon.
 True No, it is only a stick phenomenon
 No, it is only a slip phenomenon Can't be stated
12. The point of contact of two pitch circles of mating gears is called
 Pressure point Pitch point Module Contact point
13. Which of the following statements is true for belt drives?
 Belt drive is used in applications having constant speed drive
 Belt drives can be used at extremely high speeds
 Belt drives have low power transmitting capacity
 Belt drives need continuous lubrication
14. Pump transfers the mechanical energy of a motor or of an engine into _____ of a fluid.
 pressure energy
 kinetic energy
 either pressure energy or kinetic energy
 pressure energy, kinetic energy or both
15. _____ pump is also called as velocity pump.
 Reciprocating Rotary displacement
 Centrifugal Screw
16. The process of filling the liquid into the suction pipe and pump casing upto the level of delivery valve is called as _____.
 filling pumping priming leveling
17. An advantage of the axial – flow compressor is its-
 Low starting power requirement Less vibration on the engine
 Low weight High peak efficiency
18. Class-A fire consists of fire due to
 Wood Oil Transformer Chemical
19. Which of the generic coating types listed below is recommended for service in sea water immersion?
 Epoxy polyamide Epoxy ester
 Silicone alkyd Acrylic emulsion
20. Oxygen and acetylene cylinders are made of
 Heat treated seamless copper Seamless Aluminum
 Steel Bronze

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Time : 2 hrs. 30 mins.

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Semester : II
F. M. : 55

SECTION "B"

Attempt *ALL* the questions.

1. What is wear debris analysis? Discuss in detail about its types. [5]
2. Compare Reliability centered maintenance (RCM) and Total productive maintenance (TPM). [5]
3. Explain the repair method for any material handling equipment. [5]
4. What are the steps involved in preventive maintenance? Why preventive maintenance is better than reactive maintenance? Explain. [5]
5. What is equipment availability describe the three basic approaches in detail. [5]
6. Explain about maintenance monitoring, execution and control. Elaborate your answer with your own example. [5]
7. Explain type of corrosion, give example of each. [5]
8. Write 20 causes of common failure mode in centrifugal pump and its problems. [5]
9. Explain different type of coupling with sketch. Write maintenance procedures of each coupling in detail. [7]
10. Differentiate between Fault Tree Analysis (FTA) and Failure Mode Effects Analysis (FMEA) give example correlating (FTA) and (FMEA). [8]

