1128
B.E. (Mechanical Engineering)
Seventh Semester
MEC-703: Automobile Engineering

Time allowed: 3 Hours   **Max. Marks: 50**

NOTE: *Attempt* <u>five</u> *questions in all, including Question No. I which is compulsory and selecting two questions from each Unit.*

x-x-x

I.   Attempt the following:-

a)   Write short note on principle of friction clutch.

b)   What is viscosity index? What is its importance?

c)   State factors of wheel alignment?

d)   What are the advantages of four wheel drive over two wheel drive.

e)   What is the purpose of brake shoe adjuster?

f)   What is the material of clutch facing?

g)   Why and which types piston rings are used?

h)   What is the function of differential?

i)   What is the function of overdrive?

j)   Differentiate between the functions of spring and Shock absorber.   (10x1)

UNIT – I

II.   a) Explain working of differential with the help of neat sketch.

b) Explain the principle of automatic transmission   (5,5)

III.   a) Draw and explain the general layout of an automobile

b) How preventive maintenance may be done for an automobile?   (5,5)

IV.   Explain the working of ABS in detail with the help of neat diagrams.   (10)

UNIT – II

V.   How computers have been used in automobiles? Explain the working of CRDI draw detailed sketches.   (10)

VI.   a) Why bleeding of brake is done? How it is done?

b) Write a note on self energized brakes   (5,5)

VII.   What are the elements of steering geometry in an automobile? Explain in detail with diagrams.   (10)

x-x-x