Roll No. _____

END SEMESTER EXAMINATION
SEMESTER- V

COURSE CODE : AE 409 | **DURATION : 3 (THREE)HRS**
COURSE TITLE : AUTOMOBILE ENGINE - II | **MAXIMUM MARKS : 75**
SESSION : JUL – DEC'2021 | **PASS MARKS : 35 %**

NOTE:
1. *All the questions are compulsory*
2. *Attempt any 5 (five) questions.*
3. *Mark for each question is shown against it.*
4. *Assume suitable logical data wherever necessary.*

1.	**(a)**	Discuss the function and construction of Cylinder block.	**(8)**
	(b)	What are the advantages of using cylinder block as a casting product than the individual cylinder casting techniques?	**(7)**
2.	**(a)**	Discuss three types of cylinder head with help of diagrams.	**(12)**
	(b)	State three advantages of having detachable cylinder head types over the integral construction.	**(3)**
3.	**(a)**	What are the main five functions of Oil Pan?	**(5)**
	(b)	Describe in detail the construction and materials used for the oil pan.	**(10)**
4	**(a)**	Write the functions of engine inlet and exhaust manifolds.	**(8)**
	(b)	With neat sketch explain construction and materials used for inlet and exhaust manifold.	**(7)**
5.	**(a)**	Define a gasket. State its function.	**(5)**
	(b)	Discuss various requirements of the gaskets. Describe the materials and structure for the main gaskets used in automotive practice	**(10)**
6.	**(a)**	Discuss failures of piston rings i.e. their symptoms, causes and remedies	**(8)**
	(b)	Describe in detail the failures in cylinder liners with respect to their causes, symptoms and remedies	**(7)**
7.	**(a)**	State eight main advantages of cylinder block material of grey cast iron over aluminium.	**(8)**
	(b)	Explain the various functions of crankcase.	**(7)**
8.	**(a)**	What do you know about oil additives? Explain briefly the commonly used oil additives.	**(7)**
	(b)	Discuss in detail the effect of different engine conditions on the lubricating oil.	**(8)**

xxxxxxxxxxxxxxxxxx