

**FIRST YEAR KGCE EXAMINATION IN AUTOMOBILE ENGINEERING**  
**AUTOMOBILE ENGINEERING-1 (TRADE THEORY)**

**MODEL QUESTION PAPER SET-1**

(Time: 3 hours)

(Maximum Marks:60)

**PART-A**

*(There should be at least 3 questions from each module)*

(Maximum Marks:20x1 Marks = 20 Marks)

I. Answer the following questions by choosing the correct answer from the options given below.

Each question carries 1 mark.

Q No	Question	Module
1	Identify a special tool from the following list a) Screw driver b) Piston ring compressor. c) Combination plier d) Ring spanner	M 1
2	Pick the tool which is used to measure the speed of an engine a) Tachometer b) Multimeter. c) Feeler gauge d) Odometer.	M 1
3	Full form of L.M.V. is a) Long motor vehicle b) Light motor van. c) Light motor vehicle d) Low moving vehicle.	M 1
4	Total distance travelled by a piston inside the cylinder from T.D.C to B.D.C. is called a) Bore b) Stroke c) Swept volume. d) Skirt.	M 1
5	A device used to convert chemical energy to mechanical energy is called a) An engine. b) A motor. c) A compressor d) A turbine	M 1
6	A part that connects piston and connecting rod is a) Journal bearing b) Compression rings c) Crankpin d) Piston pin	M 1
7	A device helps to mix air and fuel in various proportions. a) Fuel injection pump.	M2

	<ul style="list-style-type: none"> <li>b) Fuel feed pump.</li> <li>c) Governor</li> <li>d) Carburetor</li> </ul>	
8	<p>Full form of M.P.F.I.is</p> <ul style="list-style-type: none"> <li>a) Multi point Fuel Injection</li> <li>b) Multi Petrol Fuel Injection</li> <li>c) Mono point Fuel Injection.</li> <li>d) Multi point Filtered injection.</li> </ul>	M 2
9	<p>Choose a component which is not a part of solid injection system</p> <ul style="list-style-type: none"> <li>a) Fuel feed pump</li> <li>b) Fuel injection pump</li> <li>c) Common rail</li> <li>d) Injectors</li> </ul>	M 2
10	<p>The passages provided in an engine to circulate the coolant is</p> <ul style="list-style-type: none"> <li>a) Water jackets</li> <li>b) Fins</li> <li>c) Radiator</li> <li>d) Expansion reservoir</li> </ul>	M2
11	<p>The term used to denote the resistance to flow of a fluid is</p> <ul style="list-style-type: none"> <li>a) Volatility</li> <li>b) Viscosity</li> <li>c) Inertia.</li> <li>d) Calorific value.</li> </ul>	M3
12	<p>The device transmits power from an engine to gearbox is</p> <ul style="list-style-type: none"> <li>a) Propeller shaft</li> <li>b) Diffential</li> <li>c) Final drive</li> <li>d) Clutch</li> </ul>	M3
13	<p>A part which comes in between pressure plate and fly wheel is</p> <ul style="list-style-type: none"> <li>a) Clutch disk.</li> <li>b) Release bearings</li> <li>c) Release fingers.</li> <li>d) Pressure springs.</li> </ul>	M3
14	<p>What is C.V.T</p> <ul style="list-style-type: none"> <li>a) Continuous vacuum transmission</li> <li>b) Continuously variable transmission</li> <li>c) Constant velocity transmission.</li> <li>d) Continuous velocity transmission.</li> </ul>	M3
15	<p>Identify the type of gear used in sliding mesh gearbox</p> <ul style="list-style-type: none"> <li>a) Worm gear</li> <li>b) Helical gear</li> <li>c) Spur gear</li> <li>d) Herringbone gear.</li> </ul>	M3
16	<p>Select the part which connects the propeller shaft to the final drive</p> <ul style="list-style-type: none"> <li>a) Universal joint.</li> </ul>	M4

	b) Slip joint. c) Knuckle joint d) Hooke's joint.	
17	90° power transmission is possible at a) Universal joint b) Gearbox c) Differential d) Propeller shaft	M4
18	Which type of rear axle is suitable for heavy duty vehicles? a) Semi floating type b) Full floating type c) Three quarter floating type d) Two third floating types.	M4
19	Choose a component which is not a part of a typical steering system a) Drop arm b) Torsion bar. c) Steering gear d) Pitman arm	M4
20	The inward and outward tilt of tire and wheel assembly is called a) Camber b) Caster c) Kingpin inclination d) Toe-in	M4

### PART-B

*(There should be at least 2 questions from each module)*

(MaximumMarks: 8x5 Marks = 40 Marks)

II. Answer *any eight* questions from the following. Each question carries marks.5 Marks.

Q No	Question	Module
1	List out the major components of an Automobile.	M1
2	Compare four stroke and two stroke engines	M1
3	Draw a neat sketch of a typical piston and mark various parts.	M1
4	Explain the working of an electrical fuel pump with the aid of diagram	M2
5	Draw and marks the parts of individual pump diesel system.	M2
6	What are the advantages of water cooling system?	M2
7	Explain any five properties of lubricants.	M3
8	Distinguish between single plate and multiplate clutch	M3
9	Explain the working of a constant mesh gearbox.	M3
10	List the functions and types of front axle.	M4
11	Explain the working of rack and pinion type steering gear box.	M4
12	Explain the necessity and functions of a typical differential.	M4

