

**FIRST YEAR KGCEEXAMINATIONIN AUTOMOBILE ENGINEERING  
AUTOMOBILE ENGINEERING-II (TRADE THEORY)**

**MODEL QUESTION PAPER SET-1**

(Time: 3 hours)

(MaximumMarks:60)

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

(MaximumMarks: 20x1 Marks = 20 Marks)

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

Each question carries 1 mark.

<b>Q No</b>	<b>Question</b>	<b>Module</b>
1	Identify the principle behind hydraulic brake system a) Boyle's law b) Charles's Law c) Pascal's Law d) Newton's Law	M 1
2	Full form of A.B.S a) Anti Lock brake system b) Automatic Brake system c) Automated Brake System d) Antilock Booster System	M 1
3	The Backbone of Chassis is a) Frame b) Body c) Suspension system d) Wheels and tires	M 1
4	The ratio which gives the relationship between tires width to height is a) Compression ratio b) Aspect ratio c) Backlash d) Stoichiometric ratio	M 1
5	The part which accommodates the change in length of leaf spring is a) U-bolt b) Central bolt c) Shackle. d) Eye	M 1
6	is a) Positive crankcase ventilation b) Point crankcase ventilation c) Port crankcase ventilation d) Post crankcase ventilation	M2
7	Electrolyte used in lead acid battery is a) Diluted sulphuric acid	M2

	<ul style="list-style-type: none"> <li>b) Nitric acid</li> <li>c) Sulphuric acid</li> <li>d) Hydrochloric acid</li> </ul>	
8	<p>Which one is not a component of battery coil ignition system</p> <ul style="list-style-type: none"> <li>a) C.B. point</li> <li>b) Transistor</li> <li>c) Distributor</li> <li>d) Ignition coil.</li> </ul>	M 2
9	<p>The condition of positive plate in a fully discharged lead acid battery.</p> <ul style="list-style-type: none"> <li>a) Lead Peroxide</li> <li>b) Lead oxide</li> <li>c) Lead Sulphate</li> <li>d) Lead</li> </ul>	M 2
10	<p>The component which reduces the arching and pitting of C.B. points is</p> <ul style="list-style-type: none"> <li>a) Ballast</li> <li>b) Condenser</li> <li>c) Ignition coil</li> <li>d) Rotor</li> </ul>	M2
11	<p>Solenoid switch is used in</p> <ul style="list-style-type: none"> <li>a) Charging system</li> <li>b) Ignition system</li> <li>c) Suspension system</li> <li>d) Starting system</li> </ul>	M3
12	<p>The device which converts A.C. to D.C. in an Alternator is</p> <ul style="list-style-type: none"> <li>a) Regulator</li> <li>b) Rectifier</li> <li>c) Transistor</li> <li>d) Solenoid</li> </ul>	M3
13	<p>The device used to vary the brightness of headlight beam.</p> <ul style="list-style-type: none"> <li>a) Dimmer switch</li> <li>b) Solenoid switch</li> <li>c) Ignition switch</li> <li>d) Selector switch</li> </ul>	M3
14	<p>The device used to protect the horn button from high ampere current is</p> <ul style="list-style-type: none"> <li>a) Horn relay</li> <li>b) Flasher unit</li> <li>c) Dimmer switch</li> <li>d) Condenser</li> </ul>	M3
15	<p>In which system of a vehicle that includes bendix drive</p> <ul style="list-style-type: none"> <li>a) Starting System</li> <li>b) Charging System</li> <li>c) Lighting System.</li> <li>d) Ignition System</li> </ul>	M3
16	<p>The vehicles which are powered by an I.C. engine and an Electric</p>	M4

	motor are called a) Hybrid vehicle b) Electric vehicle c) Gasoline vehicles a) Fuel cell vehicles	
17	O.B.D stands for a) Outboard display system b) Onboard display system c) Outboard diagnostic system d) Onboard diagnostic system	M4
18	The device controls the transfer of power from engine to vehicles air conditioner is a) Expansion valve b) Thermostat c) Relay d) Magnetic clutch	M4
19	The sensor which measure the amount of unburnt oxygen in the exhaust pipe is a) Oxygen Sensor b) Mass air flow sensor c) Throttle point sensor d) Manifold absolute pressure sensor	M4
20	The full form of E.G.R a) Exhaust Gas Regulation b) Exhaust Gas Recirculation c) Exhaust Gas Rectification. d) Exhaust gas Reduction.	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	Explain the classifications of brakes.	M1
2	Advantages and disadvantages of disk brake.	M1
3	Draw a neat sketch of a leaf spring assembly and mark all parts.	M1
4	Explain the chemical action takes place when the lead acid battery is charging and write its chemical equation.	M2
5	Explain the necessity of ignition system and types.	M2
6	Draw the circuit of capacitor discharge ignition system and name the parts.	M2
7	Explain the working of an alternator	M3
8	Draw the circuit diagram of head light system and mark its parts	M3
9	Describe the Keyless entry system.	M3

10	Sketch the layout of automobile air conditioning system mark its parts	M4
11	State the functions of engine actuators	M4
12	Explain about plug in hybrid electric vehicles	M4