

KARNATAKA SCHOOL EXAMINATION AND ASSESMENT BOARD

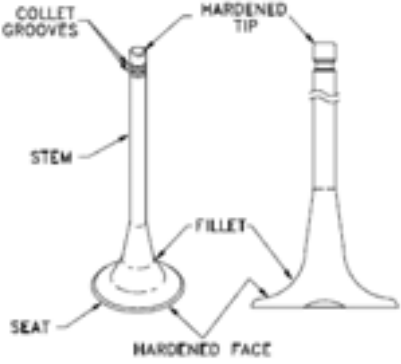
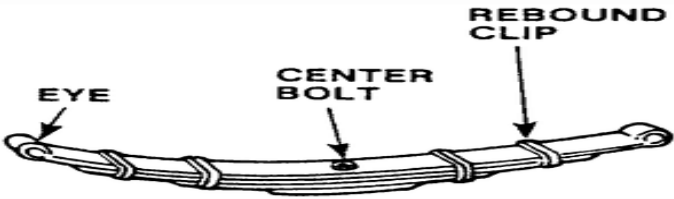
II PUC EXAM-1, MARCH-2025

SUBJECT: 63-AUTOMOBILE MODEL ANSWERS

PART-A

Q.N O	ANSWERS	MARKS	
I.	CHOOSE THE CORRECT ANSWER	10x1=10	
1)	b) Listening	1	
2)	d) Ctrl + X	1	
3)	c) Manufacturer	1	
4)	a) 15000	1	
5)	b) Clutch and propeller shaft	1	
6)	d) Small	1	
7)	c) Wheel balancer	1	
8)	a) Head lamps	1	
9)	b) Three	1	
10)	d) Battery	1	
<u>PART-B</u>			
II.	ANSWER THE FOLLOWING QUESTIONS (ANSWER ANY 10)	10x2=20	
11)	Stress is a state of feeling upset annoyed and hopeless is called stress.	2	
12)	1. Microsoft Excel 2. Libre office calc 3. Google sheet (Any two)	1 1	2
13)	1. The manufacturers develop service manual which gives clear cut ideas of their product. 2. The service manual helps to teach the technicians to work on the vehicle systematically to solve the problems as well as to provide service to maintain originality.	1 1	2
14)	1. ECM 2. Sensors 3. Actuators 4. Processor	1/2 1/2 1/2 1/2	2



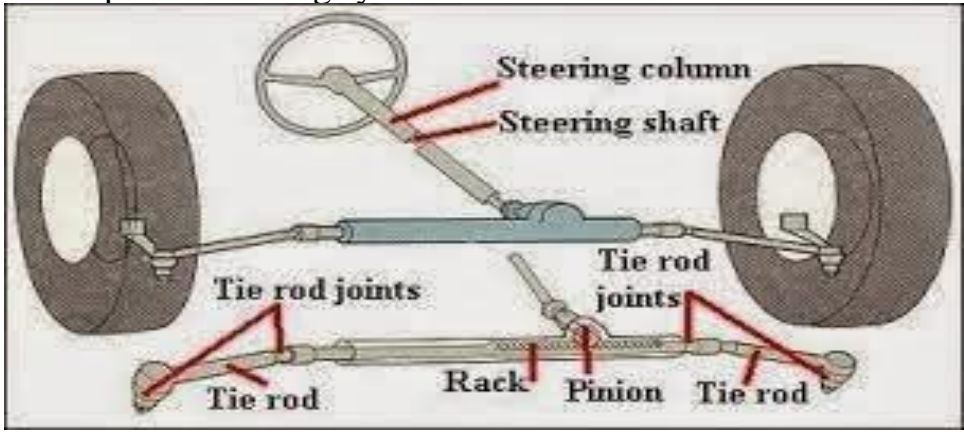
15)		Diagram-2 marks		2
16)	<ol style="list-style-type: none"> 1. Automated manual transmission (AMT) 2. Continuously variable transmission (CVT) 	1 1	2	
17)	<ol style="list-style-type: none"> 1. To transfer the engine power to wheels. 2. To transmit the power to the wheels in different speed while turning. 	1 1	2	
18)	<ol style="list-style-type: none"> 1. Overloading 2. Road conditions 3. Broken casing 4. Leakage of fluid 5. Worn out <p>(any four)</p>	½ ½ ½ ½	2	
19)	<p>Suspension systems are important for on road safety performing the function of keeping the tyres evenly connected with the road and maintaining a vertical load on the tyres.</p>	2		
20)	 <p>Leaf spring</p>	Diagram-2 marks		2
21)	<p>Oscilloscope:</p> <ol style="list-style-type: none"> 1. Oscilloscope is very useful in diagnosing many electrical problems quickly and accurately very fast reacting voltmeter that reads and display voltage. 2. It reacts very fast and gives reading or faults about electrical related reading in automobile electric system. 	1 1	2	
22)	<ol style="list-style-type: none"> 1. The climate control system (Heating, Ventilation and Air-Conditioning (HVAC) system) is designed to provide to comfort for the driver and passengers. 2. It controls system to maintain in car air temperature and humidity. 	1 1	2	

23)	Electrical testing equipment's <ul style="list-style-type: none"> • Ammeter • Jumper wires • Test lights • Multimeter • Voltmeter • Ohmmeter <p style="text-align: right;">(Any four)</p>	1/2 1/2 1/2 1/2	2
<u>PART-C</u>			
III.	ANSWER THE FOLLOWING (ANSWER ANY SIX)	6x3=18	
24)	1. Service entrepreneurs 2. business entrepreneurs 3. Industrial entrepreneurs 4. Agricultural entrepreneurs 5. Technical entrepreneurs 6. Non-technical entrepreneurs 7. Professional entrepreneurs 8. IT entrepreneurs <p style="text-align: right;">(Any six)</p>	1/2 1/2 1/2 1/2 1/2 1/2	3
25)	1. Reducing scrap materials 2. Ensuring quality control 3. Waste exchange 4. Managing e-waste	1 1 1	3
26)	<ul style="list-style-type: none"> • Index • Page number • Expanded view of assembly • Disassembly sequence • Tolerances, gazes, sizes of components • Serviceability • Life span • Decision for Repair or Replacement • Assembly procedure and • Working test procedure <p style="text-align: right;">(Any 6)</p>	1/2 1/2 1/2 1/2 1/2 1/2	3
27)	Cooling system components: <ul style="list-style-type: none"> • Radiator • Water pump • Thermostat • Cooling fan • Pressure cap • Radiator cap 	1/2 1/2 1/2 1/2 1/2 1/2	3

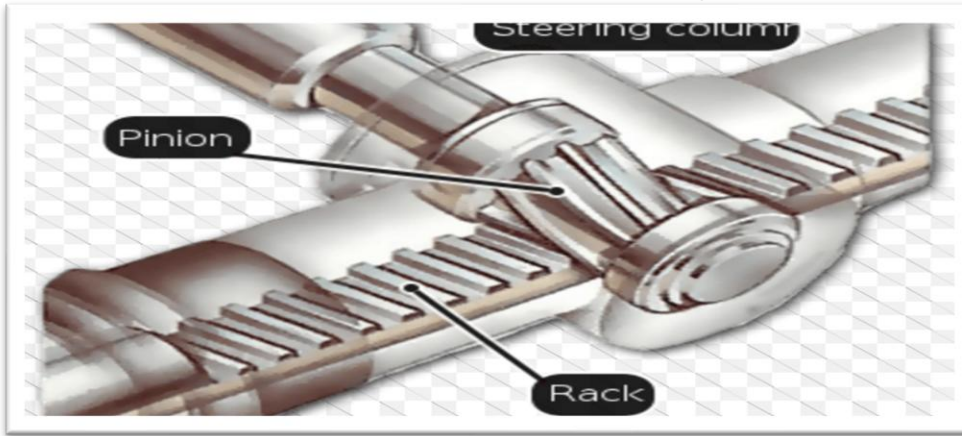


28)	A turbo charged engine can be more powerful and efficient than a naturally aspirated engine because the turbine forces more air, fuel and supply to combustion chamber.	3																											
29)	<ol style="list-style-type: none"> 1. Diaphragm clutch is small in size. 2. It transmits more torque. 3. It is less affected by centrifugal force. 	1 1 1	3																										
30)	<ol style="list-style-type: none"> 1. Check boots for breakage 2. Replace the broken Circlip. 3. Check that there is no play. 4. Check and seethe in board. 5. Check the play in redial direction. 6. Check all components of drive shaft 	½ ½ ½ ½ ½ ½	3																										
31)	<ol style="list-style-type: none"> 1. Maintaining the correct vehicle ride height. 2. Reducing the effect of shock forces to the vehicle. 3. Maintain the correct wheel alignment 4. Supporting the vehicles driving stability. <p style="text-align: right;">Any 3</p>	1 1 1	3																										
32)	The harness consists of bunches of cables leading to the various components to be connected. Each bunch is bound together with a PVC tape, leaving sufficient lengths of individual cables protecting at each end for making the necessary electrical connections easily.	3																											
33)	<ol style="list-style-type: none"> 1. Glass or ceramic fuses 2. Blade-type fuses 3. Bullet or cartridge fuses 	1 1 1	3																										
<u>PART-D</u>																													
IV.	ANSWER THE FOLLOWING	(ANSWER ANY 2)																											
		2x6=12																											
34)	<p>Causes and remedy for Cooling System</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: center;">Reasons</th> <th style="text-align: center;">Remedy</th> </tr> </thead> <tbody> <tr> <td>Loose or broken water pump pulley belt</td> <td>Adjust / replace</td> </tr> <tr> <td>Low level of coolant</td> <td>Check coolant level and add as necessary</td> </tr> <tr> <td>Faulty thermostat</td> <td>Replace</td> </tr> <tr> <td>Faulty water pump</td> <td>Replace</td> </tr> <tr> <td>Dirty or bend radiator fins</td> <td>Clean or remedy</td> </tr> <tr> <td>Broken water pump fan</td> <td>Replace</td> </tr> <tr> <td>Coolant leakage on cooling system</td> <td>Repair</td> </tr> <tr> <td>Defective cooling fan motor</td> <td>Check and Replace</td> </tr> <tr> <td>Plugged radiator and defective rubber hoses</td> <td>Check and Replace radiator</td> </tr> <tr> <td>Faulty radiator cap</td> <td>Check the upper hole on the radiator cap and also check rubber sealing and replace it if found defective</td> </tr> <tr> <td>Faulty thermostatic switch</td> <td>Replace switch</td> </tr> <tr> <td>Improper ignition timing</td> <td>Adjust</td> </tr> </tbody> </table> <p style="text-align: center;">Any six each</p>	Reasons	Remedy	Loose or broken water pump pulley belt	Adjust / replace	Low level of coolant	Check coolant level and add as necessary	Faulty thermostat	Replace	Faulty water pump	Replace	Dirty or bend radiator fins	Clean or remedy	Broken water pump fan	Replace	Coolant leakage on cooling system	Repair	Defective cooling fan motor	Check and Replace	Plugged radiator and defective rubber hoses	Check and Replace radiator	Faulty radiator cap	Check the upper hole on the radiator cap and also check rubber sealing and replace it if found defective	Faulty thermostatic switch	Replace switch	Improper ignition timing	Adjust	1 1 1 1 1 1 1 1 1	6
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35) Rack and pinion Steering system:



OR Diagram-5, Parts-1



6

36)

1. Battery acid is very corrosive. Do not allow it to come in contact
2. When making connections to a battery, be careful.
3. When disconnecting battery cables, always disconnect the negative (ground) cable first.
4. When connecting battery cables, always connect the negative cable last.
5. Avoid any arcing or open flames near battery.
6. Follow manufacturer's instructions when charging s battery.
7. Do not add additional electrolyte to the battery if it is low. Add only distilled water.
8. Do not wear any jewelry or watches while servicing the battery.
9. Never lay tools across the battery
10. Wear safety glasses or face shield when servicing the battery.

Any 6

1

1

1

1

1

1

6



37)

Ignition system

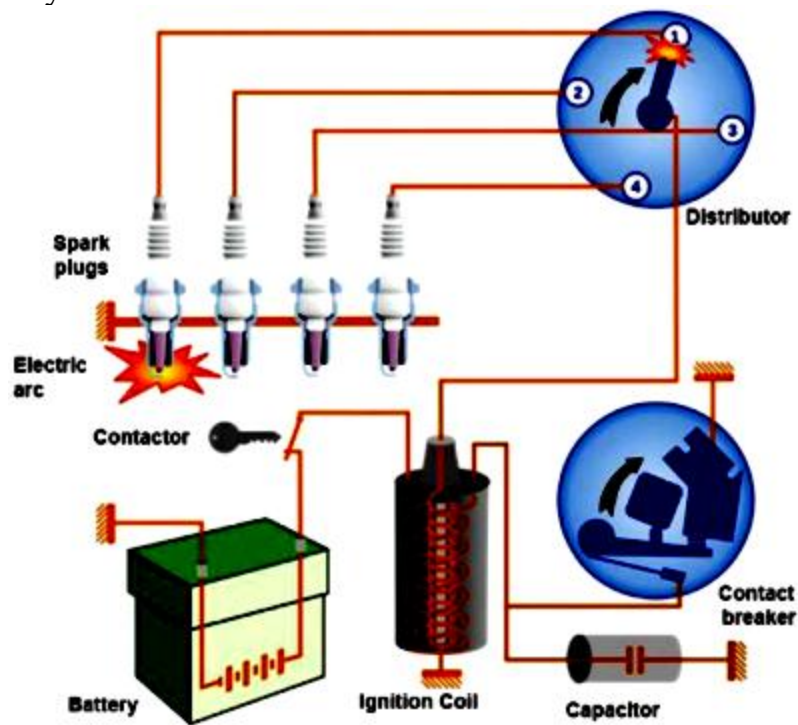


Diagram-5mark

Parts-1mark

6

*****END*****

