

**B****CCE RR****NSQF LEVEL-2**

**KARNATAKA SCHOOL EXAMINATION AND ASSESSMENT BOARD,  
MALLESHWARAM, BENGALURU – 560 003  
NSQF LEVEL-2 EXAMINATION, JUNE, 2024  
MODEL ANSWERS**

Date : 15. 06. 2024 ]

CODE NO. : **88-EK****Subject : Automobile**

( English Medium )  
( Regular Repeater )

[ Max. Marks : 60

Qn. Nos.	Value Points		Total
I.	<b>Four choices are given for each of the following questions / incomplete statements. Choose the correct answer and write the complete answer along with its question number and its letter of alphabet : 10 × 1 = 10</b>		
1.	Rolling resistance depends upon (A) Slope of the road (B) Speed of the vehicle (C) Materials of the road surface (D) Vehicle's acceleration <b>Ans. ( C ) Materials of the road surface</b>		1
2.	An example for natural lubricant is (A) Grease (B) Animal Oil (C) Petroleum oil (D) Commercial grade oil <b>Ans. (B) Animal Oil</b>		1

**CCE-II-RR(B)/999/8063(MA)**

[ Turn over

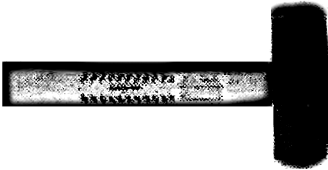
Qn. Nos.	Value Points		Total
3.	<p>The component that supports the weight of the vehicle is</p> <p>(A) Strut rod                      (B) Strut</p> <p>(C) Spring                          (D) Ball joint</p> <p><b>Ans. ( C ) Spring</b></p>		1
4.	<p>Stub axle without rigid axle beam type is widely used on these vehicles</p> <p>(A) Cars</p> <p>(B) Buses</p> <p>(C) Heavy commercial vehicles</p> <p>(D) Trucks</p> <p><b>Ans. ( A ) Cars</b></p>		1
5.	<p>The actual power delivered at the crankshaft is</p> <p>(A) Indicated horsepower</p> <p>(B) Brake horsepower</p> <p>(C) Friction horsepower</p> <p>(D) Horsepower</p> <p><b>Ans. ( B ) Brake horsepower</b></p>		1
6.	<p>The tool used to check the oil level in the engine is</p> <p>(A) Oil filter                      (B) Dipstick</p> <p>(C) Oil drain plug              (D) Funnel</p> <p><b>Ans. ( B ) Dipstick</b></p>		1
7.	<p>A car's air filter should be replaced after</p> <p>(A) 45,000 km                      (B) 30,000 km</p> <p>(C) 50,000 km                      (D) 70,000 km</p> <p><b>Ans. ( C ) 50,000 km</b></p>		1

Qn. Nos.	Value Points		Total
8.	The material used to wipe the roof of the car while washing the car is (A) Paper (B) Sponge (C) Tissue paper (D) Plastic brush <b>Ans. ( B ) Sponge</b>		1
9.	The correct way of parking the car while changing the oil in the car is (A) Car should be on a level ground with hand brake on and engine off (B) Car should be on a slope with hand brake on and engine on (C) Car should be on a level ground with hand brake on and engine on (D) Car should be on a level ground with hand brake off and engine off <b>Ans. ( A ) Car should be on a level ground with hand brake on and engine off</b>		1
10.	The first company to introduce 'ABS' system in cars in the year 1978 is (A) Honda (B) BMW (C) Mercedes-Benz (D) TATA <b>Ans. (C) Mercedes-Benz</b>		1
<b>II.</b>	<b>Fill in the blanks with suitable answer : 4 × 1 = 4</b>		
11.	Door windows of cars are held by ..... <b>Ans.</b> Fasteners		1
12.	The tube tyre and tubeless tyres are called ..... tyres. <b>Ans.</b> Pneumatic		1

Qn. Nos.	Value Points		Total																
13.	The brake is a ..... creating device. <b>Ans.</b> Friction		1																
14.	A grease gun is a ..... tool used for lubrication. <b>Ans.</b> Garage		1																
<b>III.</b>	<b>Uses of automobile tools are given in Column-A and automobile tools are given in Column-B. Match them and write the answer along with its letter of alphabet : <math>4 \times 1 = 4</math></b>																		
15.	<table border="1" style="width: 100%;"> <thead> <tr> <th>Column-A</th> <th>Column-B</th> </tr> </thead> <tbody> <tr> <td>(i) Removing the wheels of vehicle</td> <td>(a) Snips</td> </tr> <tr> <td>(ii) For softer blows</td> <td>(b) Wheel wrenches</td> </tr> <tr> <td>(iii) To create cylindrical holes</td> <td>(c) Hand hacksaw</td> </tr> <tr> <td>(iv) To cut sheet metals</td> <td>(d) Mallet</td> </tr> <tr> <td></td> <td>(e) Drill bits</td> </tr> <tr> <td></td> <td>(f) Multimeter</td> </tr> <tr> <td></td> <td>(g) Tachometer</td> </tr> </tbody> </table> <p><b>Ans :</b></p> <p>(i) (b) Wheel wrenches (ii) (d) Mallet (iii) (e) Drill bits (iv) (a) Snips</p>	Column-A	Column-B	(i) Removing the wheels of vehicle	(a) Snips	(ii) For softer blows	(b) Wheel wrenches	(iii) To create cylindrical holes	(c) Hand hacksaw	(iv) To cut sheet metals	(d) Mallet		(e) Drill bits		(f) Multimeter		(g) Tachometer	<p>1 1 1 1</p>	4
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<b>IV.</b>	<b>Answer the following questions : <math>6 \times 1 = 6</math></b>																		
16.	What are the two common problems of the suspension system ? <b>Ans.</b> (i) Shock absorbers struts are located behind the wheel of a vehicle. (ii) The wearing out of ball joint can get dangerous because if they separate.	<p><math>\frac{1}{2}</math> <math>\frac{1}{2}</math></p>	1																

Qn. Nos.	Value Points		Total
17.	Write the use of spanner.  <b>Ans.</b> The spanner is a hand tool used to loosen and tighten the nuts and bolts.		1
18.	Name any two measuring tools used in automobile.  <b>Ans.</b> 1. Caliper 2. Micrometer	  $\frac{1}{2}$ $\frac{1}{2}$	1
19.	Regular oil change is important for a vehicle. Why ?  <b>Ans.</b> Engine oil is important material in a vehicle. Incorrect oil level can cause the serious damage to your vehicle engine.		1
20.	What are the precautions to be taken during vehicle washing ?  <b>Ans.</b> 1. Wear old clothes for this job 2. Use car soap only	  $\frac{1}{2}$ $\frac{1}{2}$	1
21.	Mention any two top-10 innovations.  <b>Ans.</b> 1. Antilock braking system 2. Air bag advancement 3. Electronic stability system 4. DVD player. ( any two )	    $\frac{1}{2}$ $\frac{1}{2}$	1

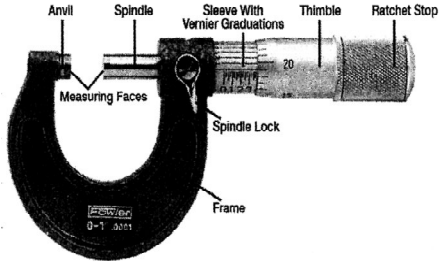
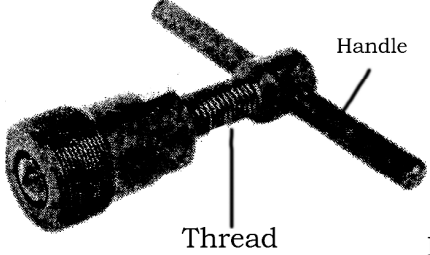
Qn. Nos.	Value Points		Total
<b>V.</b>	<b>Answer the following questions :</b> <b>6 × 2 = 12</b>		
22.	List the functions of front axle. <b>Ans.</b> 1. If carries the weight of the front of the vehicle 2. If carries the stub axle king pin 3. If works as cushion through its spring for a comfortable ride.      ( any two )	1 1	2
<b>OR</b>			
	List the types of stub axles. <b>Ans.</b> Different types of stub axles : 1. Elliot type 2. Reverse Elliot type 3. Lamoine type 4. Reverse Lamoine type	½ ½ ½ ½	2
23.	Explain bottoming in suspension system. <b>Ans.</b> When a vehicle is overloaded, it causes greater deflection in the spring than the normal specified values, the result is lowering down of the whole vehicle. This is called bottoming.		2
<b>OR</b>			
	Explain any two principles of suspension system. <b>Ans.</b> ❖ To restrict road vibrations from being transmitted to the various components of the vehicle. ❖ To protect the passengers from road shocks. ❖ To maintain the stability of the vehicle in pitching and rolling.		2

Qn. Nos.	Value Points		Total
24.	Draw the diagram of a hammer. <b>Ans.</b>  Hammer		2
25.	Two-post lifts are helpful for servicing a vehicle. How ? <b>Ans.</b> 1. It is used for lifting an automobile vehicle and to carry out the work under the chassis. 2. It consists of two columns and screw are fitted in each column.	1 1	2
26.	"Coolant of a vehicle should be changed at regular intervals." Why ? <b>Ans.</b> Coolant is important for vehicle to prevent its overheating and maintain the constant engine operating temperature.		2
27.	Mention the four important aspects of customer care. <b>Ans.</b> <u>Aspects</u> 1. Know your product 2. Body Language 3. Anticipate Guest needs 4. Feel good factor	½ ½ ½ ½	2





Qn. Nos.	Value Points		Total
30.	<p>Explain "Know your product", with respect to customer sales care.</p> <p><b>Ans.</b></p> <p>Know what product/service you are offering, in other word, be an information expert. It is okay to say, 'I don't know, but it should always be followed up by 'but let me find out "(or) possibly' but my friend knows" whatever the situation may be "make sure that you don't leave your customer with an unanswered question.</p>		3
31.	<p>Explain tyre pressure monitoring system in car safety technology.</p> <p><b>Ans.</b></p> <ol style="list-style-type: none"> <li>1. Tyre pressure monitoring system provides the latest and greatest technology for eliminating low tyre pressure on our cars</li> <li>2. It can also alert us in seconds to a flat tyre.</li> </ol>	<p>2</p> <p>1</p>	3
<b>OR</b>			
	<p>Explain sensitive air bag system related to vehicle safety technology.</p> <p><b>Ans.</b></p> <p>This technology may even be able to detect that an individual is not wearing a seat belt (or) that he (or) she is positioned abnormally in the seat and compensate that air bag deployment to accommodate this.</p>		3

Qn. Nos.	Value Points		Total
VII.	<b>Answer the following questions :</b> <b>3 × 4 = 12</b>		
32.	<p>Write the requirements of a propeller shaft in a vehicle.</p> <p><b>Ans.</b></p> <p>(1) High torsional strength  (2) Toughened  (3) Hardened  (4) Efficiently welded  (5) Dynamically balanced  (6) Least stress concentration  (7) Reduced frost load  (8) Higher fatigue life</p>	<p>1/2  1/2  1/2  1/2  1/2  1/2  1/2  1/2</p>	4
33.	<p>Draw the diagram of screw gauge and label the parts.</p> <p><b>Ans.</b>  Screw Gauge</p>  <p style="text-align: right;">Diagram -3 Parts - 1</p>		4
<b>OR</b>			
	<p>Draw the diagram of fly wheel puller.</p> <p><b>Ans.</b></p>  <p style="text-align: center;">Fly wheel puller</p> <p style="text-align: right;">Diagram -3 Parts - 1</p>		4

