

CBSE | DEPARTMENT OF SKILL EDUCATION

AUTOMOTIVE (SUBJECT CODE 804)

CLASS XII (SESSION 2021-2022) BLUE-PRINT FOR SAMPLE QUESTION PAPER FOR TERM -1

Max. Time Allowed: 90 Minutes (1½ Hrs.)

Max. Marks: 30

PART A - EMPLOYABILITY SKILLS (05 MARKS):

UNIT NO.	NAME OF THE UNIT	NO. OF QUESTIONS (1 MARK EACH)
1	Communication Skills-IV	2
2	Self-Management Skills-IV	2
3	Information and Communication Technology Skills-IV	2
TOTAL QUESTIONS		6 Questions
NO. OF QUESTIONS TO BE ANSWERED		Any 5 Questions
TOTAL MARKS		1 x 5 = 5 marks

PART B - SUBJECT SPECIFIC SKILLS (25 MARKS):

UNIT NO.	NAME OF THE UNIT	NO. OF QUESTIONS (1 MARK EACH)
1	Measuring & service Equipment	12
2	Steering system	9
3	Suspension system	8
4	Transmission and Final Drive system	3
TOTAL QUESTIONS		32 Questions
NO. OF QUESTIONS TO BE ANSWERED		25 Questions
TOTAL MARKS		1 x 25 = 25 MARKS

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Max. Time Allowed: 90 Minutes (1½ Hrs.)

Max. Marks: 30

General Instructions:

1. Please read the instructions carefully
2. This Question Paper is divided into 03 sections, viz., Section A, Section B and Section C.
3. Section A is of 05 marks and has 06 questions on Employability Skills.
4. Section B is of 20 marks and has 25 questions on Subject specific Skills.
5. Section C is of 05 marks and has 07 competency-based questions.
6. Do as per the instructions given in the respective sections.
7. Marks allotted are mentioned against each section/question.
8. All questions must be attempted in the correct order

SECTION A

Answer any 5 questions out of the given 6 questions on Employability Skills (1 x 5 = 5 marks)

1.	Following step does not involve Active listening a) Contact b) Absorb c) Confirm d) Grooming	1
2.	What to avoid before an interview a) Get a good night's sleep the night before b) Do research c) Eat a good breakfast d) Show your nervousness	1
3.	Feeling extremely nervous and worried because you believe that other people do not like you or are trying to harm you is _____ a) Paranoid b) Antisocial c) Schizoid d) Stability	1

4.	Which personality disorder is a condition marked by an overreliance on other people to meet one's emotional and physical needs? a) Narcissistic b) Avoidant c) Dependent d) Obsessive	1
5.	The _____ is located below the Title bar. It has commands like File , Edit, etc. Clicking on each menu option displays a list of commands. a) Standard bar b) Menu bar c) Formatting bar d) Formula bar	1
6.	Select a short step for opening a workbook a) Ctrl+A b) Ctrl+N c) Ctrl+O d) Ctrl+S	1

SECTION B

Answer any 20 questions out of the given 25 questions

(1 x 20 = 20 marks)

7.	An _____ is a machine that converts power using an electric motor, diesel or gasoline engine, etc. into potential energy stored in pressurized air a) air compressor b) Turbine c) Engine d) Locomotive	1
8.	Positive-displacement compressors work by forcing air into a chamber whose volume is _____ to compress the air. a) Increased b) decreased c) Remains same d) Does not affect	1
9.	In case of dynamic balancing test wheel is rotating at----- rpm, and then measuring the forces of imbalance as the tyre rotates. a) 50 b) 100 c) 200 d) 300 rpm or higher	1
10.	When air compressor's tank pressure reaches its _____ limit the air compressor shuts off a) Lower b) Middle c) Upper d) Outer	1

11.	Rotary screw compressors is a type of _____ compressor. a) Positive displacement b) Negative displacement c) High voltage d) Low voltage	1
12.	Which compressors deliver a fixed volume of air at high pressures? a) Low pressure b) High pressure c) Screw type d) Vane type	1
13.	Medium-pressure compressors, which have a discharge pressure of _____ a) Less than 150 psi b) 151 to 500 psi c) 151 to 1000 psi d) More than 1000 psi	1
14.	Which testing is used for sparkplug cleaning? a) Gap Testing b) Sand blast c) Crash Testing d) Weather testing	1
15.	Which of the following is not a component of car washer? a) Electric motor b) Reciprocating water pump c) Pressure gauge d) Spark plug	1
16.	Spark plug cleaner and tester operates on _____ V AC power source a) 120 b) 220 c) 360 d) 420	1
17.	The first automatic car washes appeared in the late _____ a) 1901s b) 1930s c) 1947s d) 1950s	1
18.	Which type of tyre inflator need more efforts? a) Automatic b) Semi-automatic c) Manual d) Old	1

19.	_____ is the tilt of car wheels from the vertical when viewed from the front of the vehicle a) Camber b) Caster c) Toe In b) Toe Out	1
20.	Camber is _____ if the tilt is outwards at the top a) Minimum b) Maximum c) Positive d) Negative	1
21.	The amount of camber is generally kept in between _____ a) 0° to 1° b) 0° to 2° c) 0° to 3° d) 0° to 4°	1
22.	Inclination of king pin from vertical when viewed from the _____ of vehicle is called King Pin Inclination or King Pin Rake. a) front b) Rear c) Left side d) Right side	1
23.	Amount of steering axis inclination should be between _____ a) 1° to 2° b) 3° to 8° c) 9° to 12° d) 5° to 12°	1
24.	The distance between the steering axis and the axis of the road wheel at the point where they intersect the road surface is called as _____ a) Centre point steering b) Total angle c) scrub radius d) Combined angle	1
25.	Which type of steering gear box is widely used in heavy vehicles a) Worm and Sector b) Screw and Nut c) Rack and Pinion d) Worm and nut with Re-circulating ball	1
26.	_____ is provided in the track rod of Steering Linkage for Vehicle with Rigid Axle Front Suspension to change its length for adjusting wheel alignment. a) Slip joint b) Universal joint c) Adjuster d) Tie rod	1

27.	ECM stands for _____ a) Electronic Capacity Mode b) Energy Control Machine c) Electronic Control Module d) Electricity Converting Machine	1
28.	The main disadvantage of rigid suspension system is _____ a) The two wheels are independent of each other to absorb shock b) The two wheels are not independent of each other to absorb shock c) These are heavy d) They are costly	1
29.	Which system acts together with the tyres to absorb and damp the various vibrations, oscillations and shocks received by the vehicle due to irregularities of the road in order to protect the passengers and cargo, and improve driving stability? a) Suspension system b) Steering system c) Braking system d) Transmission system	1
30.	Independent front wheel and rear wheel suspensions may be of following categories a) With coil spring b) With leaf spring c) With Torsion Bar Spring d) All of the above	1
31.	The _____ refers to the weight which is not supported by the suspension springs i.e. weight of the components between the springs and road surface a) Sprung Weight b) Un-sprung weight c) Laden weight d) Un-laden weight	1

SECTION C
(COMPETENCY BASED QUESTIONS)

Answer any 5 questions out of the given 7 questions

(1 x 5 = 5 marks)

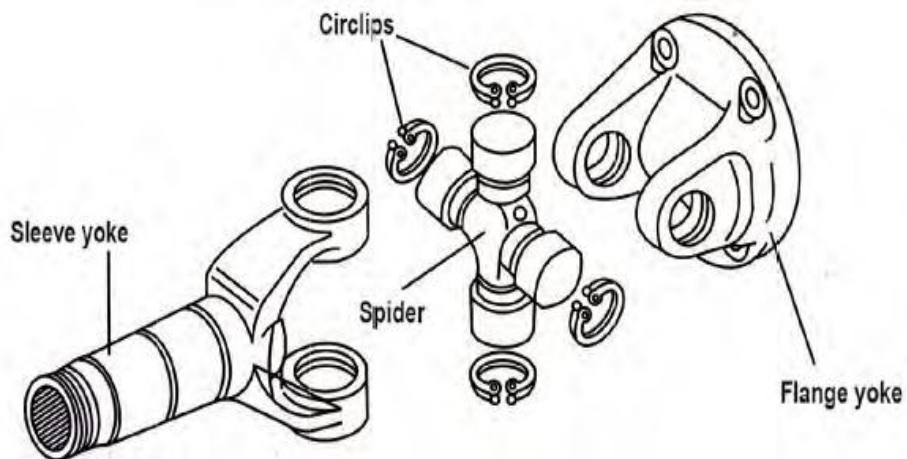
32.	Rehan was driving a car, when he was driving from rough road, he observed that car is oscillating Up and down, at front and rear, in relation to its centre of gravity this is known as _____ a) Pitching b) Rolling c) Bouncing d) Yawing	1
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33.	<p>Yatish is working as works manager in automobile garage, as he was taking a test drive of customer he found that the leaf springs attempt to wind themselves around the axle due to the driving torque. Kindly suggest him a technical term for the same.</p> <p>a) Hopping b) Tramping c) Wind- up d) Round up</p>	1
34.	<p>Surendar was travelling in car and suddenly his car started lateral swaying, It indicates there is problem in _____</p> <p>a) Leaf spring b) Shock Absorber c) Stabilizer bar d) Tie rod</p>	1
35.	<p>As a design engineer, which spring you will refer for heavy vehicle suspension system</p> <p>a) Coil spring b) Rubber spring c) Air spring d) Hydraulic spring</p>	1
36.	<p>As a sales manager which types of transmission you will prefer to customer in a car which has more fuel economy</p> <p>a) Manual Transmission b) Automatic Transmission c) Semi-automatic transmission d) Traditional</p>	1
37.	<p>As a design engineer suggest, In case of front engine front wheel drive, which component can be dispensed which will not affect cars performance?</p> <p>a) Clutch b) Gear box c) Propeller shaft d) Axle beam</p>	1

38.

Ajit is working in spare part department, customer has given him part photo to purchase, so Identify the following type of universal joint so that Ajit can place order for the same.

1



- a) Cross or spider type
- b) Flexible Ring type
- c) Rzeppa joint
- d) Tripod joint