

CBSE | DEPARTMENT OF SKILL EDUCATION

AUTOMOTIVE (SUBJECT CODE -404)

Blue-print for Sample Question Paper for Class IX (Session 2022-2023)

Max. Time: 2 Hours

Max. Marks: 50

PART A - EMPLOYABILITY SKILLS (10 MARKS):

| UNIT NO. | NAME OF THE UNIT | OBJECTIVE TYPE QUESTIONS | SHORT ANSWER TYPE QUESTIONS | TOTAL QUESTIONS |
|--|----------------------------|--------------------------|-----------------------------|-----------------|
| | | 1 MARK EACH | 2 MARKS EACH | |
| 1 | Communication Skills – I | 1 | 1 | 2 |
| 2 | Self-Management Skills – I | 2 | 1 | 3 |
| 3 | ICT Skills – I | 1 | 1 | 2 |
| 4 | Entrepreneurial Skills – I | 1 | 1 | 2 |
| 5 | Green Skills - I | 1 | 1 | 2 |
| TOTAL QUESTIONS | | 6 | 5 | 11 |
| NO. OF QUESTIONS TO BE ANSWERED | | Any 4 | Any 3 | 07 |
| TOTAL MARKS | | 1 x 4 = 4 | 2 x 3 = 6 | 10 MARKS |

PART B - SUBJECT SPECIFIC SKILLS (40 MARKS):

| UNIT NO. | NAME OF THE UNIT | OBJECTIVE TYPE QUESTIONS | SHORT ANSWER TYPE QUESTIONS | DESCRIPTIVE/ LONG ANS. TYPE QUESTIONS | TOTAL QUESTIONS |
|--|---|--------------------------|-----------------------------|---------------------------------------|-----------------|
| | | 1 MARK EACH | 2 MARKS EACH | 4 MARKS EACH | |
| 1 | History and Evolution of Automobiles | 3 | 1 | - | 4 |
| 2 | Various types of Automobiles | 3 | 1 | 1 | 5 |
| 3 | Major Systems & Components of an Automobile | 10 | 2 | 2 | 14 |
| 4 | Road Safety | 4 | 1 | 1 | 6 |
| 5 | Automobiles and our Environment | 4 | 1 | 1 | 6 |
| TOTAL QUESTIONS | | 24 | 6 | 5 | 35 |
| NO. OF QUESTIONS TO BE ANSWERED | | 20 | Any 4 | Any 3 | 27 |
| TOTAL MARKS | | 1 x 20 = 20 | 2 x 4 = 8 | 4 x 3 = 12 | 40 MARKS |

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Sample Question Paper for Class IX (Session 2022-2023)

Max. Time: 2 Hours

Max. Marks: 50


General Instructions:


1. Please read the instructions carefully.
2. This Question Paper consists of **21 questions** in two sections: Section A & Section B.
3. Section A has Objective type questions whereas Section B contains Subjective type questions.
4. **Out of the given (5 + 16 =) 21 questions, a candidate has to answer (5 + 10 =) 15 questions in the allotted (maximum) time of 2 hours.**
5. All questions of a particular section must be attempted in the correct order.
6. **SECTION A - OBJECTIVE TYPE QUESTIONS (24 MARKS):**
 - i. This section has 05 questions.
 - ii. Marks allotted are mentioned against each question/part.
 - iii. There is no negative marking.
 - iv. Do as per the instructions given.
7. **SECTION B – SUBJECTIVE TYPE QUESTIONS (26 MARKS):**
 - i. This section has 16 questions.
 - ii. A candidate has to do 10 questions.
 - iii. Do as per the instructions given.
 - iv. Marks allotted are mentioned against each question/part.

SECTION A: OBJECTIVE TYPE QUESTIONS

| Q. 1 | Answer any 4 out of the given 6 questions on Employability Skills (1 x 4 = 4 marks) | |
|-------------|---|----------|
| i. | We should use _____ while communicating verbally. a) difficult words b) simple words c) confusing words d) abbreviations | 1 |
| ii. | Pick the self-management skill in which you keep yourself clean, healthy, and smart. a) Self-awareness b) Self-motivation c) Personal hygiene and grooming d) Positive thinking | 1 |
| iii. | Ramesh gets feedback on his project work from his class teacher. Which of these options demonstrates a positive attitude in this situation? a) He ignores the feedback. b) He takes the feedback but does not use it. c) He tells others that the teacher is wrong. d) He learns from the feedback and makes his project work better. | 1 |
| iv. | Select the classroom is one in which students watch lectures on their computers at home and use classroom time for more interactive exercises. | 1 |
| v. | Identify the enterprise in which the investment in plant and machinery or equipment is less than INR 1 crore and the turnover is less than INR 5 crores. a) Micro enterprise b) Small enterprise c) Medium enterprise d) Big enterprise | 1 |
| vi. | Choose the odd one out. a) Non-renewable energy b) Green building c) Clean transportation d) water, waste and land management | 1 |

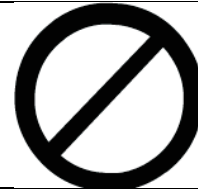
| Q. 2 | Answer any 5 out of the given 6 questions (1 x 5 = 5 marks) | |
|-------------|--|----------|
| i. | Select the medium which considerably minimizes friction by allowing motion with the use of axles. a) Inclined plane b) Grease c) Wheel d) Lubricating oil | 1 |
| ii. | The earliest known model of a wooden wheel and its axle was recovered in 2003 in the Ljubljana, capital of _____. | 1 |
| iii. | Choose the wheel, invented very recently, allows for the development of lighter and faster vehicles. a) Spoked wheel b) Solid wheel c) Rubber wheel d) Alloy wheel | 1 |

| | | |
|------------|--|---|
| iv. | What percentage of the motorcycle segment is comprised of two wheelers? | 1 |
| v. | Identify the construction equipment shown in the figure. a) Dozer b) Road roller c) Tiller d) Excavator |  1 |
| vi. | A _____ is a type of motor vehicle that may transport both products and passengers. a) private vehicle b) commercial vehicle c) combine harvester d) Excavator | 1 |

| | | |
|-------------|--|---|
| Q. 3 | Answer any 5 out of the given 6 questions (1 x 5 = 5 marks) | |
| i. | Specify the component, responsible for breaking up the fuel into a fine spray or atomized form. | 1 |
| ii. | Which of the following engines can be operated on fuels like benzol and alcohol? a) CI engine b) SI engine c) GI engine d) CRDi engine | 1 |
| iii. | Identify the component shown in the given figure. a) Brake disc b) Clutch disc c) Pressure Plate d) Flywheel |  1 |
| iv. | Choose the section, the middle piece of the front axle of a rear-wheel-drive vehicle is manufactured. a) I-section b) C-section c) L-section d) O-section | 1 |
| v. | What is used Compressed air? | 1 |
| vi. | _____transmit the power from the engine through the gearbox, propeller shaft and rear axle to the ground with which the vehicle moves. a) Differential b) Axle shaft c) Tyre d) Brakes | 1 |

| | | |
|-------------|---|----------|
| Q. 4 | Answer any 5 out of the given 6 questions (1 x 5 = 5 marks) | |
| i. | Which of the following should not get disturbed on the application of brakes. a) Suspension system b) Steering geometry c) Steering system d) Transmission system | 1 |
| ii. | Name the system that produces a spark in the engine combustion chamber at the end of the compression stroke. | 1 |

| | | |
|------|---|---|
| iii. | Select the type of glass that consists of two thin sheets of glass with a thin layer of clear plastic between them. a) Tempered glass b) Laminated glass c) Plain glass d) Tinted glass | 1 |
| iv. | _____ is one of the passive safety systems for the occupants of car. a) Air bag b) Glass c) Braking system d) Suspension System | 1 |
| v. | The validity of international driving license is for _____. | 1 |
| vi. | Identify the road sign shown in the given figure. a) No Parking b) No Stopping c) No waiting d) Restriction ends | 1 |



| | | |
|-------------|--|---|
| Q. 5 | Answer any 5 out of the given 6 questions (1 x 5 = 5 marks) | |
| i. | Identify the road sign shown in the given figure. a) Domestic Airport ahead b) International Airport ahead c) Runway d) No Stopping for cars | 1 |
| ii. | Traffic signs are divided into _____ main categories. | 1 |
| iii. | Pick the year in which the first stage emission norms came into force for petrol vehicles. a) 1989 b) 1990 c) 1991 d) 1992 | 1 |
| iv. | Choose the year when first-stage emission standards for diesel cars came into effect. a) 1989 b) 1990 c) 1991 d) 1992 | 1 |
| v. | Write the complete form of ULP. | 1 |
| vi. | Which Name the state has the largest number of CNG commercial vehicles in the World? | 1 |



SECTION B: SUBJECTIVE TYPE QUESTIONS

Answer any 3 out of the given 5 questions on Employability Skills (2 x 3 = 6 marks)

Answer each question in 20 – 30 words.

| | | |
|--------------|---|----------|
| Q. 6 | Enumerate any two advantages of non-verbal communication. | 2 |
| Q. 7 | Prepare a list of different factors (minimum two) that decrease our self-confidence. | 2 |
| Q. 8 | Write down some of the advantages of using email. (minimum two) | 2 |
| Q. 9 | Generate a list of at least four different entrepreneurial development challenges. | 2 |
| Q. 10 | Compile a list of four man-made disturbances that contribute to ecological imbalance. | 2 |

Answer any 4 out of the given 6 questions in 20 – 30 words each (2 x 4 = 8 marks)

| | | |
|--------------|---|----------|
| Q. 11 | Precisely explain why there is less resistance to motion when compared to dragging. | 2 |
| Q. 12 | Give a brief explanation of the utility of a combine harvester. | 2 |
| Q. 13 | Define “crank and crankshaft. | 2 |
| Q. 14 | Make a list of different components of automobile air- conditioning systems. | 2 |
| Q. 15 | List at least four road safety hurdles. | 2 |
| Q. 16 | Write down four ways to control the air pollution from vehicles. | 2 |

Answer any 3 out of the given 5 questions in 50– 80 words each (4 x 3 = 12 marks)

| | | |
|--------------|--|----------|
| Q. 17 | Differentiate between a passenger vehicle and a commercial vehicle. | 4 |
| Q. 18 | Make a list of various requirements of a clutch system. | 4 |
| Q. 19 | Describe at least four main functions of an automobile's steering system. | 4 |
| Q. 20 | Write down the list of documents required for permanent registration of a car. | 4 |
| Q. 21 | Armaan noted that his diesel automobile is releasing more emissions and ready to complete its useful life of 10 years. Raghav advised him to get a CNG vehicle. Make some suggestions to support Raghav. | 4 |