



BOARD OF SCHOOL EDUCATION HARYANA

Syllabus and Chapter wise division of Marks (2023-24)

Class- 10th

Subject: Automotive

Code: AUT 926

General Instructions:

1. There will be an Annual Examination based on the entire syllabus.
2. The Annual Examination will be of 60/2=30 marks, Practical Examination will be of 50 marks and 20 marks weightage shall be for Internal Assessment.
3. For External Assessment (Practical) Examination:
 - (i) External Assessment- Hand on Skill of 25 (Written 10, Practical 15).
 - (ii) External Assessment- Portfolio of 10.
 - (iii) External Assessment- Viva of 15.

4. For Internal Assessment:

There will be Periodic Assessment that would include:

- i) For 6 marks- Three SAT exams will be conducted and will have a weightage of 06 marks towards the final Internal Assessment.
- ii) For 2 marks- One half yearly exam will be conducted and will have a weightage of 02 marks towards the final Internal Assessment.
- iii) For 2 marks- Subject teacher will assess and give maximum 02 marks for CRP (Class room participation).
- iv) For 5 marks- A project work to be done by students and will have a weightage of 05 marks towards the final Internal Assessment.
- v) For 5 marks- Attendance of student will be awarded 05 marks as:

| | |
|------------------|------------|
| 75% to 80% | - 01 Marks |
| Above 80% to 85% | - 02 Marks |
| Above 85% to 90% | - 03 Marks |
| Above 90% to 95% | - 04 Marks |
| Above 95% to - | - 05 Marks |



Course Structure (2023-24)

Class- 10th

Subject: Automotive

Code: AUT 926

| Unit. No. | Unit Name | Unit Marks |
|-----------------------|---|------------|
| 1 | Automobile and its component | 20 |
| 2 | Automobiles service tools | 10 |
| 3 | Vehicle Servicing | 10 |
| 4 | Customer Sales Care | 05 |
| 5 | Innovation and Development | 05 |
| Unit. No. | Employability Skill Units | Unit Marks |
| 1. | Communication Skills | 2 |
| 2. | Self-Management Skills | 2 |
| 3. | Information and Communication Technology Skills | 2 |
| 4. | Entrepreneurship Skills | 2 |
| 5. | Green Skills | 2 |
| Total | | 60/2=30 |
| Practical Examination | | 50 |
| Internal Assessment | | 20 |
| Grand Total | | 100 |



Unit 1: Automobile and its component

- Session 1: Chassis. Classifications of Chassis.
Session 2: Body or Superstructure -Different parts of Automobile body.
Session 3: Engine , technical terms used in engine.
Session 4: Lubrication System , Lubrication System, properties of good lubricant
Session 5: Cooling System , method of cooling
Session 6: Fuel Supply System
Session 7: Transmission system , Type of Transmission, Universal joint, type of universal joint.
Session 8: Front Axle. Front Axle, Stub axle
Session 09: Steering system, Type of steering.
Session 10: Rear axle .
Session 11: Suspension system.
Session 12: Wheel and Tyre ,Types of tyres.
Session 13: Brakes, Brakes, Requirements of good breaking system.
Session 14: Electrical and Electronics System , Battery operation

Unit 2: Automobiles service tools

- Session 1: General Tools- Hand tool
Session 2: Measuring Tools-Caliper, Screw gauge, Steel ruler.
Session 3: Electrical Tools- Multimeter, Tachometer, Hydrometer etc
Session 4: Special Tools
Session 5: Service Workshop Equipment

Unit 3: Vehicle Servicing

- Session 1: Washing of a Vehicle ,Precaution during washing.
Session 2: Changing of Oil and oil filter
Session 3: Changing of Air Filter
Session 4: Changing of Fuel Filter
Session 5: Changing of Coolant .

* How to change stepwise engine oil & oil filter , air filter, fuel filter and coolant.

Unit 4: Customer Sales Care

- Session 1: Customer Care: Customer Service, Important aspects of a customer's service, Duties of a salesperson.

Unit 5: Innovation and Development

- Session 1: Innovation and Development:
Innovation and development , How innovation take place , Top 10 innovations , Top 5 best innovations in car safety technologies.



Unit 6 : Employability Skill

- Communication skill
- Self-management skill
- Information and Communication Technology skill (ICT),
- Entrepreneurship Skill
- Green skills

Practical's: -

- 1. Chassis**
- 2. Body**
- 3. Engine**
- 4. Lubrication System**
- 5. Cooling system**
- 6. Fuel supply system**
- 7. Transmission system**
- 8. Front Axle**
- 9. Steering system**
- 10. Rear Axle**
- 11. Suspension System**
- 12. Wheel and Tyre**
- 13. Brake**
- 14. Hand Tools**
- 15. Electrical Tools**
- 16. Special Tools.**
- 17. Washing of vehicle .**
- 18. Two post Lift.**
- 19. Four Post Lift.**
- 20. New Innovation.**



Month wise Syllabus Teaching Plan (2023-24)

Class- 10th

Subject: Automotive

Code: AUT926

| Month | Subject- content | Teaching Periods | Revision Periods | Practical Work |
|-------|--|------------------|------------------|----------------|
| April | Automobile – Unit-2 Session :-1-Hand tools Unit-1- Session 1-Chassis,Classificationof Chassis Session :-2-Body or Superstructure, Different parts of Automobilebody. Employability Skill- Unit 1 Session 1 :- Methods ofCommunications Session 2:- Verbal Communications. Session 3:- Non VerbalCommunication | 16 | 2 | 3 |
| May | Automobile –Unit -1 Session :3- Engine, technicalterms used in engine Session : 4-Lubrication System, propertiesof good lubricant. Session : 5- Cooling system, method of cooling. Session : 6-Fuel supply system, Type of fuel supply system. Employability Skill – Unit 1 Session 4:- Communication cycle & importance of feed back Session5:- Barries to effective communication | 16 | 2 | 3 |
| June | Home Work – Practical unit 1-session 1 to 6 ES Revision Unit – Session – 1 to 5 | | | |
| July | Automobile –Unit-1 Session : 7- Transmission system,Type of Transmission, Universal joint, type of universal joint Session:- 8- Front Axle, Stub axle Session:- 9-Steering System, Type ofsteering gear. Employability Skill – Unit 01 Session 06:- Writing Skills : Part of Speech Session 07:- Writing Skills :- Parts of Sentences | 12 | 06 | 07 |



| | | | | |
|-----------|---|----|--------|--------|
| August | <p>Automobile – Unit-1-S-10- Rear axle S-11- Suspension system S-12- Wheel and Tyre ,Types of tyres. S-13-Brakes,Requirements of goobreaking system, S-14- Electrical and electronicssystem ,battery operation Employability Skill – Unit 2:- Session 01:- Stress Management Session 02 :- Self Awareness Strength and weakness Session 03:- Self Motivation Session 4:- Self Regulation Goal Setting</p> | 16 | 04 | 04 |
| September | <p>Revision for Half-Yearly ExamAutomobile – Unit-2 S-2-Measuring tools, screw gauge. S-3-Electrical tools, multi meter, tachometer, hydrometer etc. S-4- Special tools. Employability Skill – Revision of Half Yearly</p> | 14 | 0 6 | 03 |
| October | <p>Automobile – Unit-2-S-5- Service workshopEquipment Unit-3-S-1- Washing of Vehicle ,Precaution during washing. S-2- Changing of oil and oil filter ,How to change engine oilyourself. Employability Skill – Unit 03:- Session :- Basic Computer Operations Sessions 02:- Performing Basic file operations</p> | 12 | 0 2 | 0 6 |
| November | <p>Automobile – Unit-3-S-3- Changing of air filter,step S-4- Changing of fuel filter ,step.Changing of coolant, step Employability Skill – Unit 03:- Session 03:- Computer care and file management Session04:- Computer Security and Privacy</p> | 10 | 05 | 07 |
| December | <p>Automobile – Unit-4-S-1- Customer Service, Important aspects of a customer'sservice . Employability Skill – Unit 03 Session 05 :- Self Regulation Goal setting Unit 4 Session 1:-Entrepreneurship andSociety</p> | 15 | 0 3 | 06 |



| | | | | |
|----------|--|----|----|----|
| January | Automobile – Unit-5-S-1- Innovation and development ,How innovation takeplace ,top 10 innovations ,top 5 best innovations in car safety technologies . Employability Skill – Unit 04:- Session 2:- Qualities and Functions of an Entrepreneur Session 03:- Myths about Entrepreneurship Session 04:- Entrepreneurship as a carrer option (including Unit 05:- Green Skill Session 01 :- Sustainable Development Session 02:- Our Role to Sustainable Development (including full revision of syllabus)05 02 March Final E | 10 | | 02 |
| February | Revision | | 10 | |
| March | Annual Examination | | | |

Note:

- **Skill Subject Teachers are advised to direct the students to prepare Practical Notebook of the Terminology/Definitional Words/ Glossary used in the Chapters for Enhancement of Vocabulary or Clarity of the Concept.**
- **The PSSCIVE Skill Textbook Present Information in Boxes the book. These help Students to get Conceptual Clarity. However, the Information in these Boxes would not be Assessed in the Year- End Examination.**

Prescribed Books:

1. Security Skill Book- Text Book for Class X, PSSCIVE Publication.
2. Employability Skill Book- Text Book for Class X, PSSCIVE Publication.



NSQF Question Paper Design (2023-24)

Class- 10th

Subject: Automotive
Time 2 Hours 30 Minutes

Code: AUT 926

| Competencies | Total |
|---------------|-------|
| Knowledge | 40% |
| Understanding | 30% |
| Application | 20% |
| Skill | 10% |
| | 100% |

| Type of Question | Marks | Number | Description | Total Marks |
|---------------------------------|-------|--------|---|-------------|
| Objective Questions | 1 | 15 | 6 Multiple Choice Questions, 3 Fill in the Blanks Questions, 3 One Word Answer Type Questions, 3 Assertion-Reason Questions true/false | 15 |
| Very Short Answer Type Question | 2 | 6 | Internal choice will be given in any 2 questions | 12 |
| Short Answer Type Question | 3 | 6 | Internal choice will be given in any 2 questions | 18 |
| Essay Answer Type Question | 5 | 3 | Internal options will be given in all the questions | 15 |
| Total | | 30 | | 60 |