

Automobile Technology (GA, GB, GC)

General Instructions to the Head of the Institute

1. The programme of the practical examination is to be finalized and notified on the notice board by the Head of the Institute in accordance with the instructions regarding the conduct of the examinations laid down by the Divisional Board.
2. In case the external examiner fails to report or inform the Head of the Institute one day prior to the commencement of the examination, the Head of the Institute, is authorised to make the necessary emergency appointment in his place and inform the Divisional Board accordingly.
3. The Head of the Institute should see that proper arrangements (Lab. Accommodation and Equipments as per HSC Board Syllabus) are made for conducting the practical examination in consultation with the internal examiner.
4. The Head of the Institute should immediately hand over the packet of related documents received from H.S.C. Board office to the examiners concerned, before the exams..
5. The Head of the Institute should "Immediately" display the 'Instructions to candidate' on proper notice board along with the time table.
6. Both the internal and external examiners will be appointed by the Divisional Board.
7. The following laboratory staff will be appointed for a batch of 12 students:
 - a) Expert Assistant (Instructor) - 1
 - b) Workshop / Laboratory Assistant - 1
 - c) Peon (Helper) - 1

The REMUNERATION of above staff will be paid as per the H.S.C. board rules.

Automobile Technology (GA, GB, GC)

General Instructions to the Examiners and Scheme of Marking

1. Experiment which have been conducted during the year should be kept for the practical examination. (Minimum 75 % experiments of each paper).
2. The candidate should be given one experiment by lot system from each paper. Period of examination will be three hours for each paper . Change of experiment should be avoided as far as possible. However the internal examiner can change the allotted experiment in consultation with the external examiner, if the candidate has not performed and entered the allotted experiment in the journal.
3. Examiner should see that in a batch every candidate or Group performs a different experiment.
4. Examiner should personally verify at every stage whether each sub-question in the given slip is answered or not.
5. The assessment of answer books and the conduct of practical examination will be done jointly by both the examiners.
6. In case of any dispute the decision of the external examiner shall be final.
7. The external examiner should check the journal and project work completed during the year by the candidate.
8. The marks for project, O.J.T. and I.V. should be given by both external and internal examiner as per the marking scheme and given by the Board office.
9. Following scheme of marking should be followed

a)	Experiment	60 marks	80 marks
	Oral	20 marks	
b)	Term Work		10 marks
c)	Project work		10 marks
d)	I.V.		10 marks
d)	O.J.T		10 marks
	Total Marks (for each paper)		120 marks
10. Scheme of Marking for assessment of O.J.T. work - 10 marks
11. Scheme of Marking for assessment of I.V Work - 10 marks

Automobile Technolgy (GA, GB, GC)
General Instructions to the Candidate

1. Candidates should bring with them their certified journals, project report, O.J.T. and I.V reports with Concerned Certificates, project etc.
2. All reports and journals should be certified by the Head of the Institution or Head of the Vocational Department with counter signature of practical incharge.
3. Candidates should remain present atleast 15 minutes before the commencement of the examination.
4. Candidates should read the slip carefully and answer all the questions in the slip.
5. List of components should necessarily include all details.
6. Use of log -tables is allowed. Use of Pocket calculator, Scientific calculator is not allowed.
7. In case of any difficulty, the candidate should approach the concerned examiner.
8. Students should bring Compass box with drawing instruments.
9. Leave your table neat and clean.
10. Keep silence in the examination hall.

Automobile Technology
Paper – I Automotive Vehicle Technology (GA)
Instructions to the Candidates

1. Candidates should be present in the workshop 15 minutes earlier to the commencement of the practical examination.
2. Candidates should bring term work, project report & writing materials, instrument box, scale etc. with them.
3. While working on the Vehicle candidate should handle only the parts Concerned with them i.e. -----as per practical only. Other parts on the vehicle should not be tampered with. Marks are likely to be deducted for any unwanted & uncalled conduct or misbehavior.
4. After finishing the practicals, the candidates should see that the instruments spanners used by them are cleaned & placed at their appropriate place.’

Automobile Technology
Paper – I Automotive Vehicle Technology (GA)

Instructions to the External and Internal Examiners and
 Scheme of Marking

A)	Instructions:		
1)	Only one assembly/Vehicle should be given to each batch.		
2)	Candidates may asked simple questions while doing practical based on term - work, project report and practical allotted consisting of the operation, overhaul, fault, remedy etc.		
B)	Scheme of Marking	Marks for each Value points	Total Marks
D)			
1)	Dismantling as per proper sequence	10	
2)	Cleaning & repairing of various parts	10	
3)	Assembly of various parts - in sequence	10	
4)	Checking for proper functioning of repaired parts	10	
		----- 40	40

II)

1)	Fault finding	10
2)	Rectification of the fault	05
3)	Proper functioning of the parts	05
4)	Oral	20

Total 40

40

III) Assessment of the term work, project work should be done jointly by both examiners.

1)	Term -work/ sessional work	10
2)	Project work	10
3)	O.J.T.	10
4)	I.V	10

Total 40

40

Total

120

Automobile Technology

Paper – I Automotive Vehicle Technology (GA)

Instructions to the Head of the Institution

- 1) All the tools and equipments, measuring instruments and inspection equipments as prescribed in the syllabus are essential for conducting the practical Exam.
- 2) Petrol, diesel, gear oil, Engine oil, brake oil, kerosene cotton waste etc. should be kept ready for practical examination. Essential spare parts are also required to be kept ready.
- 3) The following vehicles should be kept ready.
 - i) Running diesel Jeep / Car. (latest four wheeler)
 - ii) Running Petrol Jeep or car (latest four wheeler)
 - iii) Running Scooters & Motor Cycle (latest vehicle.)

Automobile Technology

Paper - II Automotive Dealership (GB)

Instructions to the Candidates :

- 1) Candidates should be present in the workshop 15 minutes earlier to the commencement of the Practical Examination.
- 2) Candidates should bring term work, project report, writing materials & instrument box, scale etc. with them.
- 3) While working on the vehicle candidates should handle only the parts concerned with them. i.e. as per practicals only. Other parts of the vehicle should not be tampered with, marks are likely to be deducted for any unwanted & uncalled conduct or misbehavior.
- 4) After finishing the practicals, the candidates should see that the instruments, tools & equipments etc. used by them are cleaned & placed at their appropriate place.

Paper - II Automotive Dealership GB

Instructions to the Head of the Institution

For practical examination in **Automotive Dealership** the following things are essential and should be kept ready.

- 1) All the tools and equipments, measuring, instruments and inspection equipments as prescribed in the syllabus are essential.
- 2) Arrange the essential consumables consult with the practical.
- 3) The following Vehicles should be kept ready.
 - i) Running diesel Jeep or Car (latest Four Wheeler.)
 - ii) Running petrol Jeep or Car (latest Four Wheeler.)
 - iii) Running Scooter and Motor -cycle (latest Two Wheeler.)

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Automobile Technology
Paper - II Automotive Dealership (GB)

Instructions to the External and Internal Examiners and Scheme of Marking

A) Instructions

- 1) Only one assembly/ Vehicle should be given to each batch.
- 2) Candidates may asked simple questions while doing the practical based on term -work, project - report and practical allotted consisting of the operation, overhaul, fault, remedy etc.

B) Scheme of Marking

	Total Marks
1) Depending upon nature of practical allowed to the student both examiners will use their own criteria for giving marks	60
2) Oral on above practical	20
3) Assessment of Term -work, project work should be done Jointly by both the examiner.	
i) Term work / Sessional work	10
ii) Project work	10
iii) O.J. T.	10
iv) I.V	10
Total	----- 120 -----

Automobile Technology

Paper – III Automotive Service Technology & Driving Skills (GC)

Instructions to the Candidates

- 1) Candidates should be present in the workshop 15 minutes earlier to the commencement of the Practical Examination.
- 2) Candidates should bring term work, project report, & writing materials instrument box, scale etc. with them.
- 3) While working on the vehicle candidates should handle only the parts concerned with them. i.e. - as per practicals only. Other parts of the vehicle should not be tampered with, marks are likely to be deducted for any unwanted & uncalled conduct or misbehaviors.
- 4) After finishing the practicals, the candidates should see that the instruments, tools & equipments etc. used by them are cleaned & placed at their appropriate place.

Automobile Technology

Paper – III Automotive Service Technology & Driving Skills (GC)

Instructions to the Head of the Institution

For practical examination in Automotive Service Technology & Driving Skills the following things are essential and should be kept ready.

- 1) All the tools and equipments, measuring, instruments and inspection equipments as prescribed in the syllabus are essential.
- 2) Petrol, diesel, gear oil, engine oil, brake oil, Kerosene, Cotton Waste and essential spare parts.
- 3) The following Vehicles should be kept ready.
 - i) Running diesel Jeep or Car (latest Four Wheeler.)
 - ii) Running petrol Jeep or Car (latest Four Wheeler.)
 - iii) Running Scooter and Motor -cycle (latest Two Wheeler.)

Automobile Technology

Paper – III Automotive Service Technology & Driving Skills (GC)

Instructions to the External and Internal Examiners and Scheme of Marking

A) Instructions

- 1) Only one assembly/ Vehicle should be given to each batch.
- 2) Candidates may asked simple questions while doing the practical based on term -work, project - report and practical allotted consisting of the operation, overhaul, fault, remedy etc.

B) Scheme of Marking	Marks of each Value points	Total Marks
I)		
1) Dismantling as per proper sequence	10	
2) Cleaning & repairing of various parts	10	
3) Assembling of various parts in sequence	10	
4) Checking for proper functioning of repaired parts	10	40
II)		
1) Fault finding	10	
2) Rectification of the Fault	05	
3) Proper functioning of the parts	05	20
III) Oral	20	20
		----- Total 80
IV) Assessment of the term -work, project -work Should be done jointly by both the examiners.		
1) Term-work/Sessional work	10	
2) Project work	10	
3) O.J.T.	10	40
4) I.V	10	
	----- 40	----- Total 120 -----

AUTOMOBILE TECHNOLOGY
XIIth PAPER 1
Automotive Vehicle Technology (GA)
Practical Question Paper

Time : 3 hrs

Max Marks : 80

Instructions:

- 1) Make the batches of students Each batch should not exceed five students.
- 2) There shall be only one practical for each batch.

LIST OF PRACTICALS :

Practical : 1

Dismantle multi plate clutch of any motorcycle, clean, inspect, report on condition, suggest remedial measures, repair & refit.

Practical : 2

Dismount single plate clutch of car/jeep, dismantle, clean, inspect, report on condition, suggest remedial measures, repair & refit.

Practical : 3

Dismantle Gear Box of any four stroke motorcycle, clean, inspect, report on condition ,suggest remedial measures ,repair & refit.

Practical : 4

Dismount Synchronesh Gear Box of any car/jeep ,dismantle, clean, inspect, report on condition, suggest remedial measures, repair & refit.

Practical :5

Dismount propeller shaft from rear wheel drive vehicle, dismantle both Universal Joints, clean, inspect the parts &replace U Joint repair kit and refit propeller shaft on the vehicle.

Practical : 6

Dismount Differential Unit of any car/jeep, dismantle, clean, inspect, report on condition, suggest remedial measures, repair & refit.

Practical : 7

Dismount Steering Gear box /power steering gear from four wheeler, Dismantle, Clean, Inspect ,Report on conditions, Suggest remedial measures, Repair and Refit.

Practical : 8

Dismantle the front wheel handle bar of two wheeler assembly, clean, inspect, report on condition, reassemble and lubricate.

Practical : 9

Dismantle the front fork assembly with suspension of motorcycle, clean, inspect, report on condition of all part ,repair and refit it.

Practical : 10

Dismantle front axle with any type of independent suspension, inspect report on condition of parts ,repair and refit it properly.

Practical : 11

Dismantle rigid suspension(leaf spring) inspect, report on condition of parts, repair and refit it properly.

Practical : 12

To service hydraulic brake system Dismantle Master or Wheel cylinder of car/jeep , inspect, report on condition of parts, repair and refit it properly. Perform bleeding operation.

Practical : 13

Dismantle the drum brake system , inspect, report on condition of parts, repair and refit . Adjust brake shoe clearance and pedal free play.

Practical: 14

Overhaul Disc brake system

Practical: 15

Perform the process of tube vulcanisation by using hot patch machine.

Practical: 16

Perform the Wheel hub greasing of any four wheeler and refit.

AUTOMOBILE TECHNOLOGY

XIIth PAPER 1

Automotive Dealership (GB)

Practical Question Paper

Time : 3 hrs

Max Marks : 80

Instructions:

- 1) Make the batches of students Each batch should not exceed five students.
- 2) There shall be only one practical for each batch.

LIST OF PRACTICALS :

Practical : 1

To study and prepare a job card of two, three and four wheeler, And under stand the work to be carried out by service technician. In case of non routine service or repair/understand the standard procedure. Record service and repair activities on any one specimen job card.

Practical : 2

Write the duties and responsibilities of any four following posts at Automobile Dealership.

- | | | |
|-------------------|-----------------------------|-------------------|
| 1.Works Manager | 2.Service Engineer | 3.Service Adviser |
| 4.Sales Executive | 5.Spare parts store Manager | |

Practical : 3

Fit any two protection accessories on vehicle and write the purpose of them.

Practical :4

Fit any two entertainment/media accessories on vehicle and write the purpose of it.

Practical : 5

Write the spare part terminology and codes.

Practical : 6

List the various machines used at Automobile Dealer's Workshop and explain any two of it.

Practical : 7

Describe functions regarding retail and institutional sale of new vehicle

Practical : 8

Explain the various types of service camps offered by dealer in their respective workshops for vehicle owners.

Practical : 9

Describe valuation process of pre owned vehicle .

Practical: 10

Explain warranty claim procedure with respect to the parts of vehicle and explain causes of rejections

Practical : 11

How will dealer claim the insurance of accidented vehicle .

Practical : 12

Study functions regarding customer relationship

AUTOMOBILE TECHNOLOGY**XII th PAPER III****Automotive Service Technology & Driving Skills (GC)****Practical Question Paper****Time : 3 hrs****Max Marks : 80**

Instructions

- 1) Make the batches of students Each batch should not exceed five students.
- 2) There shall be only one practical for each batch.

LIST OF PRACTICALS :**Practical : 1**

Sketch any six mandatory , six cautionary and six informatory traffic signs.

Practical : 2

Draw and describe the various hand signals to be made by driver while driving and road signals.

Practical : 3

Write the procedure of obtaining the Licence of two/four wheeler from RTA.

Practical : 4

Carry out the major tune up of any four wheeler engine.

Practical : 5

Test the given multicylinder engine for the compression and vaccum. Compare it with specified values of compression and vaccum. Draw your conclusion.

Practical : 6

Check cylinder bore ,inspect cylinder block for flatness, taper and ovality with dial guage indicator , check cracks by compressed air or water , clean water jackets and carry out overhaul reconditioning process of cylinder block.

Practical : 7

Dismount cylinder head from engine , check flatness of surface , check valve ,valve guide , valve seat and overhaul cylinder head .

Practical : 8

Take measurement of connecting rod ,crank shaft and cam shaft with appropriate gauges . to study reconditioning process of same .

Practical : 9

Overhaul petrol / diesel multicylinder engine .

Practical :10

Check vehicle exhaust by exhaust gas analyser(P.U.C.). Write the procedure of it.

Practical : 11

Perform the Ram Servicing of four wheeler and lubricate the points.

Practical : 12

Check toe-in and toe-out by wheel alignment gauge and check camber by camber angle guage .

Practical : 13

Check and correct tyre inflation of four/two wheeler including spare wheel with tyre rotation

Practical : 14

To do road test and driving practice of two or four wheeler