

The First World Vocational College Skills Competition

Competition Rules

I. Name of the Skill

No.: W13

Chinese name: 汽车技术

English name: Automobile Technology

Industry: Equipment manufacturing, transportation

II. Competition Purpose

The World Vocational College Skills Competition (the “Competition”) aims to bring together standards, technologies, equipment, teachers and students in the field of vocational and technical education at home and abroad, promote China’s vocational education to go global and serve international cooperation in production capacity, build an important platform for teachers and students of international vocational schools to deepen friendship, exchange skills and show expertise, and promote the development of a world community of skills. Through the skills competition, expertise show and experience exchange, this Competition can be a platform to share the best practices of international vocational and technical education, enhance the influence of China’s vocational and technical education in the world in this field, and promote the development of China's vocational and technical education in line with global vocational and technical education.

This Competition aims to assess the occupational skills and quality of

participating teams in terms of production safety, organization and management, on-site problem analysis and handling, work efficiency, etc., promote the development and application of automobile technology, create an atmosphere of competition, cooperation and exchanges between teachers and students of vocational schools at home and abroad, display the good spirit of participating teams, publicize the achievements of vocational education to society, promote the in-depth cooperation and development among vocational schools in the world, explore the path of international development of vocational education with Chinese characteristics, provide Chinese programs for the world vocational education, and constantly improve the international influence and competitiveness of China's vocational education.

III. Competition Content

This competition is carried out in the form of practical operation assessment, and includes two modules: “Automobile engine disassembly, assembly and maintenance” and “Automobile electrical system maintenance”. The theoretical assessment is integrated into the practical operation assessment. When completing the practical operation assessment, the participating teams should fill in the competitor report as required. Please refer to the Table 1 for the competition content, duration and weight of each competition module.

Table 1 Competition Content, Duration and Weight of Competition Module

Competition content	Competition duration (hours)	Weight (%)	Marks
Automobile engine	1	50	100

disassembly, assembly and maintenance			
Automobile electrical system maintenance	1	50	

The operation requirements and key assessment points of each competition module are as follows:

i. Automobile engine disassembly, assembly and maintenance

1. Operation requirements

The teams must complete the disassembly, assembly and maintenance of the specified mechanical parts of the automobile engine within the specified time; complete the operation process according to the maintenance manual provided on site, identify and confirm the fault points, and fill in the Competitor Report completely and accurately. In the process of operation, the teams should consult the maintenance information skillfully, use the measuring tools and instruments in a standard way, measure the technical parameters and identify the fault points accurately, so as to ensure the operation in a safe and courteous manner.

2. Key points of assessment

Decomposition and assembly of engine mechanical systems; engine parts measurement, availability judgment; trouble shooting and selection of maintenance method . Not involved: heating assembly of piston and connecting rods; fuel tank and fuel injector maintenance; operations that require the exposure of fuel system.

ii. Automobile electrical system maintenance

1. Operation requirements

The teams must diagnose and eliminate the faults of the automobile electrical system within the specified time; complete the operation process according to the maintenance manual, identify and confirm the fault points, remove all faults and restore the automobile to normal condition, and fill in the Competitor Report completely and accurately as required. In the process of operation, the teams should consult the maintenance information skillfully, use the measuring tools and instruments in a standard way, measure the technical parameters and identify the fault points accurately, so as to ensure safe and civilized operation.

2. Key points of assessment

Check and analyze the charging system, power management system, instrumentation and warning device, lighting system, keyless entry and start stop engine system, comfort system, central door lock system, glass lifter system, electric rear-view mirror system, wiper, horn, in-vehicle network system, and find fault points. The competition module focuses on assessing the teams' understanding of the structure and control logic of the automobile electrical system and the teams' ability to use common diagnostic equipment such as multimeter and oscilloscope; and requires the teams to conduct fault diagnosis of the automotive electrical system, including preliminary preparation, safety inspection, instrument connection, symptom confirmation, visual

inspection, fault code and data flow inspection, component measurement, circuit measurement, fault point confirmation and elimination, on-site 5S sorting, etc.

IV. Competition Method

i. Team formation requirements

1. Adopt the form of "1+1" Chinese and foreign joint team ("joint team" for short), that is, a joint team consists of a Chinese group and a foreign group. There are 2 competitors in each group, who should both be students. The registration, competition and awarding should be conducted on a team basis.

2. Chinese competitors must be current full-time students from higher vocational colleges and schools (including current full-time students of the higher vocational education category from undergraduate universities). The competitors from Luban Workshop colleges can be students of the cooperative projects in secondary and higher vocational schools.

3. Foreign competitors must be registered foreign students in related majors of vocational schools, or colleges and universities providing vocational education, and international students of undergraduate schools in China are also encouraged to participate.

4. Competitor replacement: If a competitor is unable to participate for any reason during the preparation, the relevant department should issue a written explanation ten working days prior to the start of the Competition. The competitor will be replaced after verification by the office of the Executive

Committee of the First World Vocational Students Skills Competition. After the competition starts, the team is not allowed to replace the competitor.

ii. Competition method

The competition adopts the way of live competition and video broadcast. Domestic competitors will participate in the competition on site. If foreign competitors are unable to attend the competition on site, the competition should be recorded and broadcast. The foreign competitors should send the competition video meeting the competition requirements to the email designated by the Executive Committee 7 days before the formal competition day, which will be checked, trial-broadcast and sealed for record by the Executive Committee. The competition video of foreign competitors will be unsealed by the jury on the formal competition day and broadcast on the screen on site for competition. The marking criterion are the same as those of live competition.

The video format should be MP4, the resolution should be no less than 1280*720, and the aspect ratio should be 16:9. The video should show the whole process of the competition. In addition, for module B-automobile electrical system maintenance project, the video explaining how the competitor diagnose faults should also be submitted.

V. Competition Process

Competition milestones and timeline: The formal competition lasts for one day. Please refer to the Table 2 for specific arrangements.

Table 2 Competition Schedule and Content

Competition date	Competition timeline	Competition content
Day 1	Before 12:00	Registration for competitors
	13:30-18:00	Team leader meeting, familiarization, pre-competition training of judges, etc.
Day 2	08:30-09:00	Opening ceremony, drawing lots, check-in and preparation, etc.
	09:00-10:00	The first session
	10:30-11:30	The second session
	13:30-14:30	The third session
	15:00-16:00	The fourth session
Day 3	9:00-13:00	Closing and awarding

VI.Competition Task Paper

i. Process to formulate test questions

The expert panel is responsible for compiling test questions for the Competition according to the operation requirements and assessment points released in the procedures. The test questions and marking criteria should correspond to the fault points or key points of standard operation in the assessment module. The competition equipment specifications, maintenance manuals, circuit diagrams and other related technical information will be published on the designated platform of the Competition along with the model of competition vehicles (engines), specifically in electronic form.

ii. Formulation of test questions by experts

The expert panel should have completed the formulation and verification

of test questions, including determining the faults according to the model of the competition vehicle and engine, , setting and verifying specific fault points, carrying out accurate electrical and mechanical parameter measurement, formulating the marking rules, verifying the difficulty of the test questions and the standard working hours required, etc., and finalizing the competitor report and the marking form of judges. The expert panel should train the judges and explain the marking rules to them.

The experts formulating the questions should provide technical support for each assessment module during the Competition, but they will not participate in marking directly. They are responsible for the training of judges, guidance and supervision of judging, dealing with problems occurring on site, and assisting the jury president in technical management.

Competition Task Paper is made public one month before the start of the Competition through the online information release platform designated by the Competition.

iii. Competition briefing

Before the competition, a briefing of the Competition will be held to explain the key points of assessment, competition methods, matters needing attention, etc.

VII. Competition Rules

i. Familiarization

The teams should familiarize themselves with the workshop in the

afternoon of the day before the Competition, and a team leader meeting should be held to announce the competition rules and regulations.

ii. Check-in, encryption and decryption

The check-in, encryption and decryption should be conducted according to the requirements of the Competition.

iii. Formal competition

1. In each round, the competitors should follow the instructions of the jury president to start the competition. Teams should make a reasonable arrangement and use all available conditions on site to complete the task.

2. Teams should be subject to closed-off management during the Competition.

3. During the Competition, competitors must strictly follow safety operating procedures and receive the supervision and warning of judges so as to ensure safety. In case of a personal safety accident and an equipment fault due to the personal mis-operation of a team, the jury president should have the right to stop the team from continuing the competition. In the event of failure to continue the competition due to an equipment fault arising from non-personal factors of a team, the jury president should make a decision based on the specific situation (shifting the team to a standby workstation or rearranging the team to the last competition session). If the jury president confirms that the equipment fault can be removed by technical support staff and the team can continue the competition, the competitors should be given additional

competition time to make up for the delay.

4. If a team wants to end the competition earlier, they should raise their hands to give a sign to the judge. The end time of the competition should be recorded by the judge on site, and the team should not conduct any operation after the end of the Competition.

5. The jury president should remind the competitors of the remaining time and issue the closing instruction in a unified manner during the Competition. All uncompleted tasks should be stopped immediately at the end of the Competition.

6. Each team should not carry any team information, personal information, communication and storage devices, paper materials or other items into the venue. Necessary items will be provided in the venue.

7. The competition results, such as the competitor report, submitted by each team, should be confirmed by the on-site judge according to the workstation number filled in by the team.

8. The Executive Committee should be responsible for explaining or making decisions on other matters not involved or emergencies.

VIII. Competition Environment

The competition venue should be designated by the Executive Committee. The venue should include necessary areas such as preparation area, competition area, experience area, exhibition area and observation channel, with a total area of 784 square meters, as shown in the Figure 1. The rest room of competitors

(preparation area) is equipped with tables, chairs, water dispensers, etc. The judge room is equipped with desks, chairs, computers, printers, file cabinets and other office equipment.

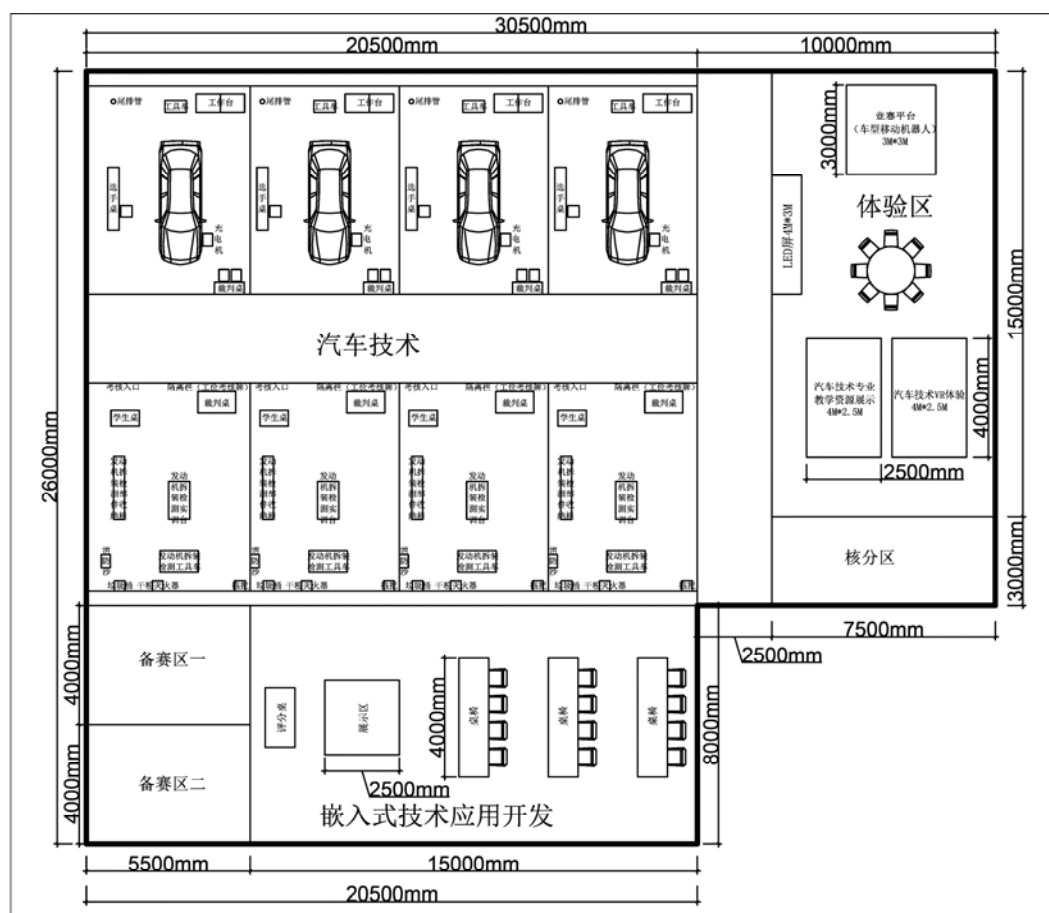


Figure 1 Layout Plan of Competition Venue

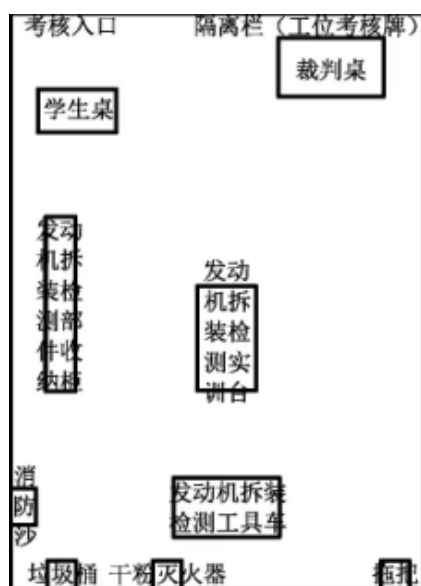
The “engine disassembly, assembly and maintenance” and "automobile electrical system maintenance" are carried out on the same site. The competition venue area and workstation setting are as shown in the Table 3. (The number of workstations will be adjusted according to the final number of the participating teams)

Table 3 Area and Workstation Number of Each Module

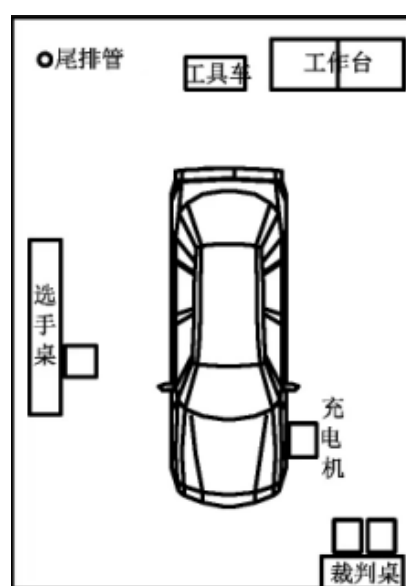
Competition content modules	Workshop area (m ²)	Workstations (number)
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Engine disassembly, assembly and maintenance	160	3+1
Automobile electrical system maintenance	160	3+1

The competition venue should be installed with exhaust extraction system or exhaust extraction and purification device. The workstation should be equipped with working lamps and sockets (lamp drum), and air pipes (air drum). The workstation of Module A is shown in the Figure 2 (a), and the workstation of Module B is shown in the Figure 2 (b).



(a) Workstation of Module A



(b) Workstation of Module B

Figure 2 Competition Workstations

The exhibition experience area is equipped with a large LED screen, two large mobile screens, a competition platform, and leisure tables and chairs. The overall layout is shown in the Figure 3.

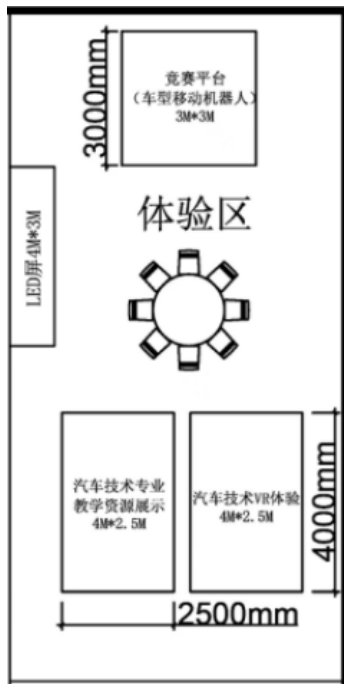


Figure 3 Exhibition Experience Area

The LED screen mainly plays the video of the national team participating in the automobile skill of Luban Workshop, as well as the landscape of the organizing schools and the counterpart schools of Luban Workshop. Two large mobile screens mainly display VR experience of automobile technology and teaching resources of automobile technology. The competition platform mainly showcases mobile robots. Leisure tables and chairs are available for visitors' professional exchanges and discussions.

IX. Technical Specifications

i. Laws and regulations

Work Safety Law of the People's Republic of China

Provisions on the Administration of Motor Vehicle Maintenance

ii. Technical standards

GB/T 18344-2016 Specification for the Inspection and Maintenance of

Motor Vehicle

GB 7258-2017 Technical Specifications for Safety of Power-driven Vehicles Operating on Roads

GB/T 15746-2011 Methods of Qualitative Assessment for Vehicle Repair

Competition vehicle model maintenance manuals and other related materials

Related equipment operation manuals

X. Technology Platform

The competition platform will be the equipment platform with the same indicators, with tools and consumables provided in a unified way. The basic configuration of the workstations is as follows:

Module A: The workstation of the engine disassembly, assembly and maintenance project should be equipped with 1 engine bench for competition, 1 set of measuring tools, 1 tool cart, 1 table and chairs for judges, and 1 table and chairs for competitors, etc.

Module B: The workstation of the automobile electrical system maintenance project should be equipped with 1 competition vehicle, 1 set of fault detection equipment, 1 tool cart, 1 table and chairs for judges, and 1 table and chairs for competitors, and corresponding instruments and equipment and auxiliary supplies.

XI. Result Evaluation

i. Marking criteria

1. Principles for development of marking criteria

The jury should be responsible for the evaluation of competition results. The marking should follow the principle of "fairness, justice and openness". There are two kinds of marking: process marking and result marking.

2. Organization and division of responsibilities

A result management organization consisting of a check-in group, a jury and a supervision and arbitration team should be established. Judges should come from automobile maintenance enterprises, non-participating colleges and non-cooperative enterprises, and be engaged in automobile maintenance work and automobile maintenance teaching. The specific requirements for judges are shown in the Table 4.

Table 4 Requirements for Judges

No.	Professional and technical directions	Requirements for knowledge and competence	Judging, teaching and work experience	Professional and technical titles (level of professional qualification)	Headcount
1	Automobile technology	Familiar with the structure and control logic of the engine mechanical system and automobile electrical	With judging experience at the provincial level or above	With technical title such as lecturer or above, or senior technician (senior engineer)	17

		system of fuel vehicles; able to use multimeter, fault diagnosis instrument, oscilloscope and other common diagnostic equipment			
Total number of judges	17 persons in total: 1 jury president, 2 encryption and decryption judges, 12 on-site judges, 2 reviewing judges.				

Specific requirements and division of responsibilities are as follows:

(1) The check-in staff is responsible for the roll call, registration and identity check of the participating teams. The staff of the organizing institution is responsible for the check-in.

(2) The jury, under the “jury president responsibility system”, is fully responsible for the judging management of the Competition, and deals with the controversial issues arising from the Competition. The jury is responsible for organizing the Competition, carefully understand the questions and marking criteria of the Competition module and explain them to the judges.

(3) The judges will be subject to closed-off management after registration. The workstations to be judged should be preliminarily determined by drawing

lots 1 hour before the Competition. Judges cannot assess the teams from the same province with them.

(4) Judges should be classified into encryption judges, on-site judges and reviewing judges, according to competition requirements.

Encryption judges: Responsible for organizing the drawing of participating teams and encrypting the information of participating teams and drawing numbers; The encryption judges of each skill should be determined by the executive committee of the division according to the requirements of the skill. The encryption judges of the same skill should come from different entities and should not participate in the marking, statistics and reviewing.

On-site judges: Recording the information about the workshop as stipulated, maintain the order of the workshop, and assess the on-site operation of the teams.

Reviewing judges: Responsible for the score reviewing and statistics.

(5) The supervision and arbitration team is responsible for supervising the work of the jury and reviewing the results of the competition by sampling, accepting written appeals against the judging results submitted by leaders of participating teams, organizing reviews and providing timely feedback on the results of the reviews.

3. Result management procedures

According to the requirements of the competition, participating teams, judges (including the jury president), members of the expert panel, and staff are

strictly prohibited from carrying communication and recording equipment into the competition venue without permission. If necessary, such equipment will be allocated and managed by the Competition in a unified way. Security check equipment can be deployed as needed to check the people entering the important parts of the venue. Wireless information shielding equipment may be installed in the relevant area of the venue. Judges should be isolated from the teams before the check-in. The evaluation and management of team results should be carried out in accordance with strict procedures, which is shown in the Figure 4 Result Management Process.

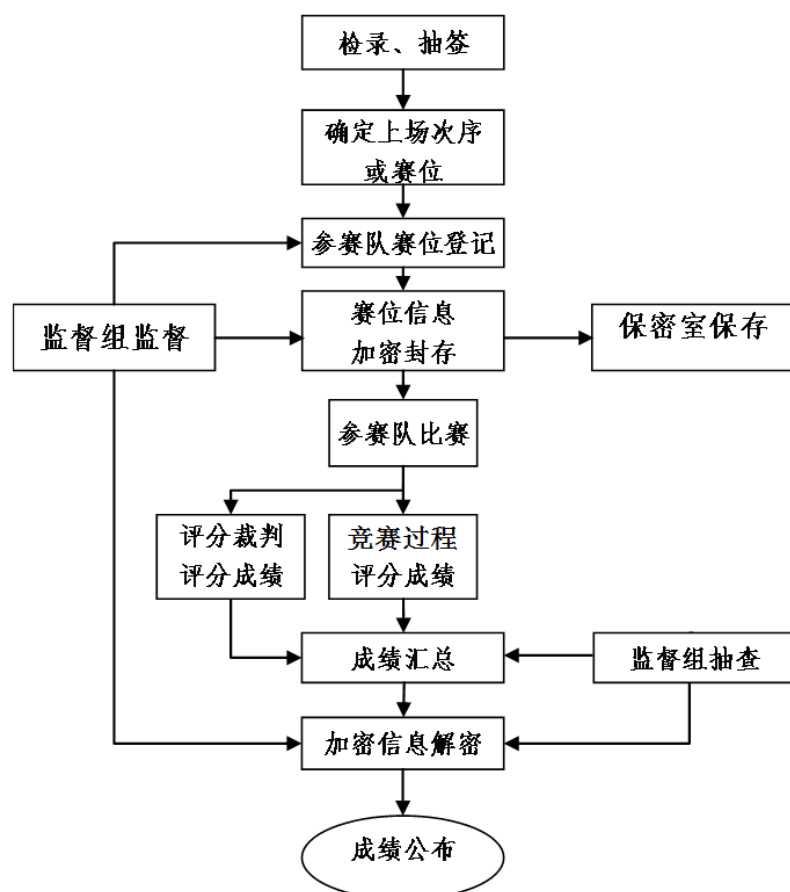


Figure 4 Result Management Process

4. Marking

(1) Process marking

The on-site judge should assess the personal safety, equipment use, operation standard and professional quality of the participating teams during the Competition according to the marking form. The marking results will be signed and confirmed by the on-site judge.

(2) Result marking

The on-site judge should assess the results according to the report submitted by the participating teams based on the marking criteria, and the marking results will be signed and confirmed by the on-site judge.

The reviewing judge should review and make statistics of the marking results. The reviewing results will be signed and confirmed by the reviewing judge.

(3) Decryption

Under the supervision of the supervision and arbitration team, the decryption judge appointed by the jury president should unseal the encrypted file of check-in drawing, and find out the corresponding relationship between each team and the workstation; The competition results should be converted from the session and workstation number to the team, sorted by the marks, and then printed and sealed.

(4) Ranking of total marks

The result of each team is the sum of the results of two competition modules. The final result of each team is the average of the sum of the two

teams' results. In the event of a tie, the team with less time will prevail according to the time each team takes to complete the completion.

(5) Review on a sampling basis

To ensure the accuracy of the result statistics, the supervision and arbitration team should review the results of all teams that rank among the top 30% in the overall results of the skill; and review the results of the rest teams on a sampling basis, with a coverage rate of no less than 15%. Any mark errors will be promptly notified by the supervision and arbitration team in writing to the jury president, and he/she will correct the results and sign for confirmation. If the error rate exceeds 5%, it will be identified as a non-small probability event, and the jury should review all the results.

5. Result announcement

(1) Publicity The mark keeper will summarize the declassified results of each team into a final result sheet, and it will be publicized after the signature of the jury president and the supervision and arbitration team leader. It will be submitted to the competition system synchronously.

(2) Result announcement The final result will be announced by the jury president at the closing ceremony.

(3) Submission The competition information officer should submit the signed printed result sheet to the Executive Committee and the office of the Executive Committee.

ii. Marking allocation rules

Please refer to Table 5 for the marking allocation rules of each competition module.

Table 5 Marking Allocation of Each Competition Module

Items	Marking allocation
Health and safety	20 points
Operation process and record	80 points
Total	100 points

iii. Point deduction for violation

1. 10 points will be deducted for personal or equipment safety accidents caused by improper operation during the completion of tasks, until the qualification is canceled.

2. 5 points will be deducted if there is any unprofessional behavior such as damaging the equipment provided in the workshop, polluting the workshop environment, etc.

3. During the Competition, any team that disobeys the judge, disturbs the order of the workshop, cheats, or forcibly operates after the judge announces the end of the competition will be disqualified from the award evaluation.

4. 5 points will be deducted if there are marks, symbols and words that should not exist on the competitor report.

XII. Awards and Prizes

A gold, a silver and a bronze medal will be awarded to each different team, and the teams in the top 50% of the overall results (other than the top three) will be awarded the winning prize.

XIII. Preliminary Plans for the Competition Venue

The preliminary plan should be implemented according to the relevant regulations of the Competition.

1. The venue should be equipped with technical personnel, so that professional technical support can be provided immediately in case of any problem for vehicles or equipment.

2. Exit passageways should be set up at the competition venue. In case of fire or any other disaster, the staff should report it to the security team immediately. After receiving the report, the security team should immediately arrive at the scene to work with firefighters and public security officers, evacuate the personnel to safe areas and deal with the situation in time.

3. In the event of equipment power failure, faults, and other accidents during the Competition, on-site judges need to promptly confirm the situation and arrange technical support personnel to handle the problem. Moreover, they should record the details and fill in the registration form for the make-up time. After reporting to the jury president for approval, they can arrange to give additional time to the corresponding competitors to make up for the delay.

4. The workshop should have spare workstations, which can be used in case of a power failure, fault or any other accident that occurs not for the reason of competitors upon the approval of on-site judges and confirmation of the jury president.

5. The venue should have an emergency medical point for emergency

treatment in case of sudden physical discomfort (such as fever, cough, etc.) or any unexpected injury or scratching of a team. If the emergency medical point thinks that the team can continue with the competition, it will be allowed to continue with the competition in the original or spare workstation upon the confirmation of the jury president. If the team is unable to continue with the competition, it can call 120 for an ambulance if necessary.

6. If an accident occurs during the Competition, whoever finds it should report it to the Executive Committee immediately, and corresponding measures should be taken to avoid further deterioration. The Competition may be suspended if there is a major safety problem, and whether to suspend it should be determined by the executive committee of the division. After the event, the executive committee of the division should report the details to the Executive Committee of the Competition.

XIV. Competition Safety

i. COVID-19 prevention and safety

The venue should be clean and tidy with good air circulation.

Before entering the venue, all personnel must provide a negative result of COVID-19 nucleic acid test taken within the past 48 hours, have their body temperature checked, wear masks, present the health code, vaccination code and communication big data travel card. Any one whose body temperature is 37.3°C or above, or whose health code is orange or red is not allowed to enter the venue. During the Competition, if there is any person whose body

temperature is 37.3°C or above, the temperature measuring staff should immediately notify the guide in the temporary quarantine area, and the guide should take the person with fever to the "temporary quarantine area". The area where the person with a fever has been should be closed and thoroughly disinfected. After the person enters the "temporary quarantine area", a mercury thermometer should be used to re-check his/her temperature. If the body temperature is still over 37.3°C, it should be reported to the Executive Committee and the Epidemic Prevention and Control Headquarters of the college immediately, and handled in strict accordance with the relevant regulations of the Tianjin COVID-19 Epidemic Prevention and Control Headquarters and the Epidemic Prevention and Control Headquarters of the Education Work Committee of the host city.

ii. Competition safety

The equipment and facilities involved in the Competition should comply with the relevant national safety regulations. The technical documents of the Competition should contain the national (or industrial) standards and regulations on occupational safety, etc., and clarify the hazard warning and preventive measures to ensure the safety of competitors. Safety and security measures should be formulated to ensure the security of the safe storage, distribution, recovery and evaluation of test questions and test projects.

iii. Workshop safety

The arrangement of the workshop, the equipment and facilities within the

workshop, should comply with the relevant national safety regulations. A cordon should be set up around the workshop to prevent irrelevant personnel from interfering with the Competition. The necessary labor protection should be provided for the competitors with reference to the requirements of the relevant occupational posts within the competition site. For dangerous operation, the judges should take strict precautions against the wrong operation of the competitors. A plan for the evacuation of people from the venue should be developed. Complete safety indication signs should be set up, and the emergency exit should be kept unblocked.

iv. Life safety

During the Competition, the food and accommodation for the competitors and their tutors should meet the national standards. The place of accommodation arranged during the Competition should have the business license for tourism. The safety of competitors, tutors, judges and staff should be ensured during the pick-up. The security management of the Competition, in addition to the necessary security quarantine measures, should strictly comply with the relevant national laws and regulations to protect personal privacy and personal freedom.

v. Emergency response

There should be a doctor and first aid medicine on site. If any accident occurs in the workshop, anyone who finds it should report it to the Executive Committee of the Competition immediately, and the Executive Committee

should activate the emergency plan and take safety measures to prevent the expansion of hazards. The doctor on site should give necessary first aid to the injured and call 120 to contact the emergency center for treatment.

1. Procedures and measures for dealing with crowding and stampede: any crowding or stampede should be reported to the Executive Committee immediately. The Executive Committee should activate the emergency plan. The safety management personnel on site should organize the personnel to maintain the order of the workshop quickly, and evacuate the personnel on site in a safe and orderly manner. Timely treatment should be given to the injured, and call 120 when necessary. If necessary, emergency vehicles should be used to send the injured to hospitals for treatment.

2. Procedures and measures for handling food safety incidents: any food safety incident should be reported to the Executive Committee immediately. The Executive Committee should activate the emergency plan, and organize rescue activities. The doctor on site should initially identify the symptoms. If a group of people have symptoms, the cause of the accident should be thoroughly investigated, and those who have the disease should be identified. A dynamic roster should be established to prevent any omission. Patients should be sent to hospitals in a timely and decisive manner, and a request should be sent immediately to nearby medical institutions and health and epidemic prevention departments for medical assistance. In addition, call "120" and report the disease symptoms to medical personnel. If necessary, emergency vehicles

should be used to send the patients to hospitals for treatment.

3. Procedures and measures for handling arguments or fighting: any argument or fighting caused by various reasons should be reported to the Executive Committee immediately. The Executive Committee should activate the emergency plan. The management personnel on site should be responsible for the organization, coordination, and settlement of the incident, and warn or order the parties concerned to withdraw from the venue to ensure the normal operation of the competition. If there are casualties on the scene, the family members of the casualties should be received and conciliated, and proper psychological counseling, compensation, and personnel treatment should be conducted.

4. Procedures and measures for handling object striking incidents: any object striking should be reported to the Executive Committee immediately. The Executive Committee should activate the emergency plan. The safety management personnel on site should maintain the order on site to prevent chaos, and keep stable order and personnel safety. The doctor on site should be notified for emergency medical treatment in time. If necessary, emergency vehicles should be used to send the injured to hospitals.

5. Procedures and measures for handling fire accidents: in case of a fire accident, the person who finds it should immediately report it to the Executive Committee and call 119 to contact the fire department. The Executive Committee should activate the emergency plan. The safety management

personnel on site should organize the staff to put out the fire, quickly evacuate the people on site and organize on-site personnel to carry out an investigation and maintain the order on site. The doctor on site should give first aid to the injured and call "120". If necessary, emergency vehicles should be used to send the injured to hospitals for treatment.

6. Procedures and measures for handling mechanical injury accidents: in case of a mechanical injury accident, the personnel on site should immediately shut down the running machinery, protect the site, and report it to the Executive Committee immediately. The Executive Committee should activate the emergency plan. The doctor on site should disinfect, bandage the wound for the injured immediately to stop bleeding and alleviate pain and fix it to prevent the injury from worsening. The doctor on site should rescue the injured and call "120" immediately. If necessary, vehicles should be ready to send the injured to the nearest hospital for treatment.

7. Procedures and measures for handling electric shock accidents: in case of electric shock accident, the personnel on site should cut off the power supply immediately and transfer the injured to a safe place, and report it to the Executive Committee immediately. The Executive Committee should activate the emergency plan. The safety management personnel on site should be responsible for the site order maintenance and personnel evacuation. The doctor on site should immediately rescue the injured and call "120" at the same time. If necessary, emergency vehicles should be ready to send the injured to

the nearest hospital for treatment.

XV. Competition Notice

i. Notice for competition-related personnel

According to the requirements of COVID-19 prevention and control, all participating teams should follow the guiding principle of "scientific prevention and control with targeted measures" to carry out the epidemic prevention and control. Under the normal epidemic prevention and control, all competitors, experts, jury president, judges, technical support personnel, participating leaders, staff, participants, volunteers and observers should included in the scope of health management for competition-related personnel.

1. Health status screening All personnel included in the health management scope of the competition should apply for the local health code, and should not go to medium- and high-risk areas for COVID-19 in China, go abroad or participate in gathering activities before the Competition. Besides, they should also participate in health status screening (epidemiological history screening) 14 days prior to registration. The persons under the following circumstances should not participate in the Competition.

(1) Those who have been confirmed with COVID-19, suspected to have COVID-19, infected with COVID-19 but not showing symptoms, and identified as a close contact and are still in the quarantine and observation period.

(2) Those who have fever, cough and other symptoms that have not been

cured in the past 14 days, are not cleared of suspicion of infectious diseases and feel physically sick.

(3) Those who have been to medium- and high-risk areas for COVID-19 in China or contacted with the people in such areas in the past 14 days.

(4) Those whose community has reported confirmed cases in the past 21 days.

(5) Those who have traveled or lived abroad in the past 14 days and are under the epidemic prevention and control policy for inbound travelers.

2. All personnel included in the scope of health management should measure their body temperature every morning, noon and evening, and report it for health monitoring in 14 days before registration. In case of fever, fatigue, cough, sore throat, sneezing, diarrhea, vomiting, jaundice, rash, conjunctiva congestion and other suspected symptoms, they should report it to the entity they work in time, and seek medical examination as soon as possible. Those who are cleared of suspected infectious diseases and feel physically sick are not allowed to participate in the competition.

ii. Notice for teams

1. Each team must purchase personal accident insurance for the competitors during the Competition.

2. Each team must manage and educate the competitors and team leaders on safety and the team leaders shall ensure smooth communication during the Competition.

3. The team leader should take the lead in obeying and executing the arbitration result of the appeal, and persuade the competitors to obey and executing the arbitration result. If there are any malicious appeals, the Executive Committee will hold relevant personnel accountable after verification.

4. The team leader is responsible for the management and organization of the team during the Competition.

5. The rules of the competition should be obeyed. Team leaders are not allowed to contact the judges personally before and during the Competition, or influence the judgment of the judges in any way.

6. A team leader should be designated to attend the pre-Competition team leader meeting on time, draw lots to determine the order of draw on the Competition day, and convey and implement the spirit of the meeting earnestly.

7. Team members should not be replaced, in principle, after their sign-ups are confirmed. However, if a competitor fails to join the competition during the preparation for the competition, his/her college should issue a written explanation, replace him/her with a substitute in line with relevant competitor qualifications, and have the substitute reviewed. After the Competition begins, teams are not allowed to change their competitors, and competitors are allowed to be absent from the competition.

8. For the skills that are allowed to be watched, team members can enter the workshop in groups in an orderly way under the guidance of the guide at the

specified time (5 minutes after the start of each round). Observers must wear observer's badge, and should not have any discussion or talk, or communicate with competitors; not stay in front of the workstation for a long time to avoid affecting the competition; not ask questions to judges and staff; and not take any photo. Any observer who breaks the rules will be immediately disqualified from the observation.

iii. Notice for competitors

1. Competitors should obey the order of the workshop and instructions of the staff.

2. Competitors should enter the workshop on time to attend the competition as required.

3. Competitors are not allowed to make loud noise or play in the workshop.

4. Competitors in the workshop should wear overalls.

5. Competitors are not allowed to carry anything unrelated to the competition into the workshop.

6. Competitors should respect the judges and other competitors.

7. Competitors should take good care of the workshop, vehicles, equipment, tools and materials during the competition.

8. During the operation, any competitor who violates the rules and safety operation should obey the warning of the judge until the termination of operation.

9. After the operation, competitors should leave the workshop as required, and should not stay in the workshop without any reason.

10. If competitors have any objection to the judgment of judges, they can submit an appeal according to the appeal and arbitration rules, but they should not keep disturbing the staff and judges.

iv. Notice for staff

1. The staff must obey the unified leadership, strictly abide by the competition discipline and time arrangement, strictly stick to their posts, and should not leave their posts without any reason.

2. All staff must dress neatly and wear corresponding badges issued by the Executive Committee. They must be energetic and provide services with enthusiasm.

3. They should be familiar with the competition instructions, strictly follow the work procedures and relevant regulations, and in case of emergencies, organize and direct the evacuation of personnel in accordance with the emergency plan to ensure the safety of personnel.

4. The staff are not allowed to enter the workshop without permission.

XVI. Appeal and Arbitration

If any unfair phenomenon or violation occurs during the Competition, the team leader can submit an appeal to the supervision and arbitration team within 2 hours after the Competition ends on the same day. The supervision and arbitration team will organize a review within two hours after receiving the appeal and give a feedback on the review result in time. If the complaining party still disagrees with the review result, the team leader may submit an appeal to the

Supervisory Arbitration Committee of the division. The arbitration result of the Supervisory Arbitration Committee of the division shall be final.

XVII. Observation of the Competition

Under the circumstance of meeting the epidemic prevention and control requirements, observers can observe the teams consulting the maintenance manuals and circuit diagrams skillfully, using the measuring tools and instruments in a standard way, measuring the technical parameters and identifying the fault points accurately, recording the operation process and test data correctly, operating in a safe and civilized way, removing faults according to the requirements of on-site judges, filling in the Competitor Report accurately and completely, and fully demonstrating the core skills of automobile inspection and maintenance and the standardized maintenance process.

XVIII. Live Competition

The whole process of the Competition should be recorded and broadcast live simultaneously. Each team can watch the competition simultaneously through multimedia and network devices.

A multi-camera shooting should be conducted for the opening and closing ceremonies. Videos on interviews with outstanding teams, comments by experts and judges, and interviews with businessmen should be produced to highlight the skills and characteristics of the Competition. Comprehensive information and materials should be provided for publicity, arbitration, and resource

conversion.

XIX. Resource Conversion

A plan for post-competition teaching resource conversion should be made according to the relevant requirements of the competition, as shown in the Table 6. Converted resources should be uploaded to the designated network information release platform of the Competition.

Table 6 Teaching Resource Conversion Plan

Name of resource			Form	Quantity	Requirements	Completion time
Basic resources	Expertise show	Competition promotional video	Video	1	More than 15 minutes	July 2022
		Expertise show video	Video	3	More than 10 minutes	July 2022
	Skill profile	Skill introduction Essentials Evaluation indicators	Word text	3	Meeting professional teaching standards	July 2022
	Teaching resources	Specialized textbooks	Electronic textbooks	1	Meeting professional teaching standards	December 2022
		Competition portfolio	Brochures	1	Publicity	December 2022
	Interview with		Video	2	Publicity	December

	outstanding teams			2022
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XX. Miscellaneous