

***2017***

***STAI***

***Guidelines  
For  
School Bus  
Technicians  
&  
Inspector  
Competition***

**Location:** MSD Warren Twp. Transportation Facility  
9150 E. Rawles  
Indianapolis, In. 46219

**Date/Time:** Friday June 9<sup>th</sup> 2017  
6:30 am till 7:00 am Sign-In  
7:00 am till 7:45 am Breakfast  
8:00 am Start Competition

**Entry Form:** All entry forms must be in prior to Competition date 6/9/17.  
Email or fax entry forms to  
Dwayne Vandiver  
Competition Coordinator  
Email: [dwayne\\_vandiver@nobl.k12.in.us](mailto:dwayne_vandiver@nobl.k12.in.us)  
Fax: 317-776-7790

**(SEE ATTACHED ENTRY FORM BELOW)**

### **Competition**

The Technician / Inspector Competition shall include three (3) phases of competition:

1. Written Examinations
2. Work Stations
3. Bus Inspection

The competitor's *total score* will be determined by combining the individual scores for each phase of the competition. All necessary tools, diagnostic equipment, and required safety equipment will be provided for use during the competition. Individual competitors will be required to follow standard safety procedures for tool usage and personal safety. **All cell phones will be turned off during Competition and will not be allowed for use while competing.**

## *1. Written Examinations*

**Purpose:** Technicians must be knowledgeable in all areas of school bus maintenance and repair and demonstrate proficiency based on technical knowledge. This portion of the competition will test the technician's knowledge as well as their ability to read, comprehend, and respond.

**Instructions:** Each competitor shall be required to complete a written examination (prepared by ASE) consisting of fifty (50) questions. These questions will cover various technical topics to include electrical systems, brakes, engines, suspensions, drive trains, and body systems. All topics will be relative to actual school bus applications. Examination booklets will be handed out along with an answer sheet. Competitors will mark only on the answer sheets. The judge(s) will indicate when the examination shall begin and will maintain a stopwatch up to the allotted time. When time is called all activities must stop and no additional items may be marked on the answer sheet. If an individual completes the examination in less than the allotted time, they are to turn their paper over and sit quietly until the allotted time has expired. **If at any time during the examinations one competitor attempts to converse with or assist another, those individuals will be disqualified from this phase of the competition.**

**Time:** The maximum allowable time for completion of the examinations will be forty-five (45) minutes. The judge(s) will notify the competitors at the thirty-five (35) minute and forty (40) minute marks.

**Total Score:** Individual tests will be scored with each correct answer being worth two (2) points.

**Maximum Score:** one hundred (100) points

## 2. *Work Stations*

**Purpose:** Technicians must be capable of diagnosing, troubleshooting, and repairing various mechanical components found on school buses. To do this proficiently requires substantial mechanical knowledge and the ability to utilize troubleshooting techniques and equipment. This portion of the competition will test the technician's hands on ability of working on components/systems.

**Instructions:** Competitors will be required to troubleshoot and identify mechanical deficiencies at two (2) different stations. The judge(s) will indicate when the troubleshooting shall begin and will maintain a stopwatch up to the point that the allotted time has expired. When time is called all activities must stop. The competitor will be required to respond orally identifying the defect in detail. Specific instructions/conditions regarding each diagnostic area will be provided immediately prior to the competition. **Only tools and/or instruments provided by ISBTA are allowed to be used.**

**Time:** The maximum allowable time for completion of diagnosis will be fifteen (15) minutes for each of the areas. The judge(s) will notify the competitors at the ten (10) minute and fourteen (14) minute marks.

**Scores:** Individual scores will be calculated for each of the two work station areas. The maximum number of points to be awarded for correctly diagnosing a specific area will be fifty (50) points. There will be a ten (10) point demerit assessed for any instance of misuse of tools and/or equipment or for any instance of not utilizing proper safety equipment and/or procedures.

**Total Score:** The scores from each of the diagnostic areas will be totaled to obtain the score for Diagnostic Troubleshooting.

**Maximum Score:** Fifty (50) points

### ***3. School Bus Inspection***

**Purpose:** Technicians must be capable of visually inspecting school buses and all related components to identify early signs of component wear, deterioration, improperly assembled and missing components. This inspection process is critical to insuring timely repair prior to failure. Working in this manner insures the continued safety of the students transported, eliminates vehicle down time, and reduces maintenance expenses. This portion of the competition will test the competitor's ability to inspect buses in a systematic and logical manner to insure that all defects are identified and duly noted for repairs.

**Instructions:** Prior to the competition there will be a total of fifteen (15) "must find" defects identified on the buses to be inspected. Three buses will be used for the inspection process. One bus will be used for the inspection of the interior, one for the inspection of the exterior/engine compartment, and one for the inspection of the undercarriage. The inspections will be scored based on the Technicians accuracy in identifying the (15) "must find" defects. The judge(s) will indicate when the inspection shall begin and will maintain a stopwatch up to the point that the competitor calls "Time" or the allotted time has expired. When time is called all activities must stop. There will be a ten (10) point demerit assessed for any instance of not utilizing proper safety equipment and/or procedures. The diagnosis of identifying the defects is primarily through hands on and visual inspection methods. At the request of the competitor if needed, competition officials will provide assistance to turn on lights, apply brakes, and/or turn the steering wheel.

**Time:** The maximum allowable time to complete the inspection will be fifteen (15) minutes per station (interior, exterior/engine compartment, and undercarriage). The judge(s) will notify the competitors at the five (5) minute and eight (8) minute marks.

**Total Score:** The "must find" items (total 15) will be worth ten (10) points each, other defects noted are worth zero (0) points.

**Maximum Score:** one hundred fifty (150) points

#### ***Tie-Breaker***

**Purpose:** In the event of a tie score in the final standings for positions first, second or third; a tie-breaker will be implemented to determine the higher ranking.

**Instructions:** The tie-breaker shall be based on the total amount of time consumed in completing one (1) area of the Driver Complaint Buses. This "timed" portion of the competition will be identified prior to the competition and times will be recorded for each competitor as they complete the identified phase. The competitor with the lowest total time for those competitors with the tie score will be placed in the higher position in the final standings.

*Summary of Possible Points per Event*

<b>EVENT</b>	<b>POINTS</b>
Written Examination	100 points
Work Station# 1	50 points
Work Station# 2	50 points
Bus Inspection	150 points
Tie Breaker	“Timed”

*Total Score Possible*

*350 points*



**First Place Winners:** The first place winners will receive an all-expense paid trip to the America’s Best School Bus Technicians/Inspector Competition, which will be held in Columbus, Ohio at the NAPT Conference this year.

# *School Bus Technicians / Inspector Competition Entry Form*

*To Be Completed By Competitor*

**By verification of signature; I have read, understand, and accept all terms and conditions of this competition as stated on the reverse side of this entry form.**

**Competitor Name:** \_\_\_\_\_

**Employer:** \_\_\_\_\_

**Address:** \_\_\_\_\_

**City:** \_\_\_\_\_ **State:** \_\_\_\_\_ **Zip Code** \_\_\_\_\_

**Tee-Shirt Size: Adult: M** \_\_\_ **L** \_\_\_ **XL** \_\_\_ **XXL** \_\_\_

**Signature:** \_\_\_\_\_ **Date:** \_\_\_\_\_

*To Be Completed By Competitor's Supervisor*

I hereby certify that the competitor named above is currently employed in a position to routinely/frequently perform school bus maintenance and repair.

**Signature:** \_\_\_\_\_ **Date:** \_\_\_\_\_

**Job Title:** \_\_\_\_\_ **phone:** ( \_\_\_\_\_ ) \_\_\_\_\_

**Contact Number** \_\_\_\_\_ **Fax Number** \_\_\_\_\_

**PLEASE SUBMIT ENTRY FEE (checks payable to S.T.A.I.) OF \$25.00 TO STAI Tech. Inspector Competition, 1547 N. St. Street Greenfield, Indiana 46140.**

Entry forms are not valid unless all upper portions of this form are completed. All information, excluding signatures, must be typed or legibly printed.

***To be completed by STAI Competition Coordinator***

**Date Entry Form Received:** \_\_\_\_\_ **Assigned Competitor Number:** \_\_\_\_\_