



NATIONAL ABILYMPIC  
ASSOCIATION OF INDIA

## 4<sup>TH</sup> NATIONAL ABILYMPICS -2014 CHANDIGARH



### VOCATIONAL SKILLS CONTEST

ABOVE 15 YRS.

### V03 - CAD – ARCHITECTURE

#### 1. OBJECTIVE

The aim of the test is to allow the participants to demonstrate their competence in the use of CAD Engineering drawings. The contestants are to sketch and draft simple layout plans of the given assignment and thereby prepare dimensioned drawings and related drawings (front and rear elevations, door window schedule) using CAD.

- The contestants shall be provided with the two floor plans in advance to study and prepare.
- From these plans they must decode the elevations (front and rear) and the door window schedule.

#### 2. TASK

The total contest is subdivided into tasks to test and evaluate a wide range of computer aided drawing skills. The contest shall be carried out in a CAD based computer environment to cover the entire gamut of assignments that are typically required to be carried out in CAD production environment. These are outlined below:

- a. Drawing & Editing:** The contestants will be given printed drawings consisting of two floor plans, exterior elevation and section and a pattern. The task will require the contestant to:
  1. Draw the floor plans with specified layer names, line types, and color assignments.
  2. Dimension the plans and tag the doors and windows for the same.
  3. Draft from those elevations (Front and rear) of the building.
  4. Prepare a door and window schedule
- b. Dimensioning:** The contestants will be required to do the linear, angular and radial dimensioning of the given composition in a manner suitable to be printed on an A4 sized paper at a specific scale.
- c. Annotation:** The contestant will annotate the drawing with the information retrieved from the section c above and other text as per the given drawing. The contestant will also be required to insert a title block entity (which will be a part of the prototype

drawing file supplied to him) and input basic time, date and scale information into the title block. All the text items will be input in a manner so as to print at a specified height at the specified scale.

- d. **Printing:** The drawings shall be set up by the contestant to print on A4 size paper at a specified scale. This section will test the contestant's understanding of the printing and plotting parameters as presented in the AutoCAD plot dialogue including plot scale, printer assignment, page set up and plot style assignment.

### 3. **INSTRUCTIONS FOR SPECIFICATIONS**

- a. Submission of soft copy of drawings to be in the external device provided.
- b. Hard copy of drawings to be submitted as printouts on 4 A4 sheets provided.
- c. All drawings must be contained in a proper format with borders on all sides.
- d. Printouts of drawings shall on a specific scale and the scale is to be mentioned on the same.
- e. All printouts to be in monochrome settings (Black & white).
- f. Soft copy to be prepared on a 1:1 scale.
- g. Participants must enter contestant number and name in the title block at the lower right end of the sheet.
- h. Contestants are allowed to print the set a maximum of three times including the final prints to be printed.

### 4. **ALLOCATED TIME**

#### **Maximum time 4 hrs. :**

15 min for studying the drawings and 3 hrs 45 min for drafting.

**NOTE:** The contestants shall not begin drafting before the stipulated time for studying is up.

### 5. **PRESENTATION OF COMPLETED WORK**

The contestants must store their work (in the state of completion that has been achieved in the stipulated time) in the USB memory stick and also present it along with print outs of the work.

- There will be a single memory stick with the contestants' numbers as separate folders.
- All participants must save their drawings in their respective folders only. Any other nomenclature or folders shall be disqualified.

### 6. **SPECIAL INSTRUCTIONS**

- Metric system of measurement will be used for all assignments and all dimensions will be expressed in Millimeters.
- Standard prototype drawings will be provided to all contestants to begin the task assignments.
- Each contestant will be provided with IBM compatible PC with AutoCAD 2010 software running under MS windows operating system.

## 7. **EQUIPMENT AND SOFTWARE**

The Organizing Committee in the contest will provide the following material to the contestants.

- Equipment - Computers with VGA monitors hard disk drive, floppy disk drive, and mouse.
- Software - AutoCAD (Version 2010)

Contestants who wish to bring their own tools are requested to prepare a list of such tools and present it to the organizer for approval in advance. The organizers reserve the right to not allow the use of any tools that they feel may give contestants any unfair advantage.

## 8. **EVALUATION CRITERIA:**

Assessment of the skill of the participants will be based on evaluation carried out by the judges of

- a. The actual CAD file produced by the contestant (object existence, relative position within the drawing, line shape, line thickness.)
- b. The printed output of the same (layout, character size, dimension line arrangement, line thickness etc.)

ACTIVITY	EVALUATION CHECKLIST	MAX. MARKS
Ground Floor Plan	Correct creation of layers, Assignment of color, line type (10) Accurate production of the given drawings (15)	25
Elevation E-01	Correct creation of layers, Assignment of color, line type (10) Accurate production of the given drawings (15)	25
Elevation E-02	Correct creation of layers, Assignment of color, line type (10) Accurate production of the given drawings (15)	25
Door Window Schedule DET-01	Correct dimensioning, creation of dimension style and dimension variables	15
Overall Drawing and Printing	Readability of Character sizes (5), Line weights, dimension styles, sizes of arrows, extension lines (5), Neatness and no overlapping of dimension lines	10
<b>Total</b>		<b>100</b>