CST - Technical Drawing and D.C.G

T016

Thursday, 17/11/2016 08:30 - 11:30 WORKFORCE DEVELOPMENT AUTHORITY



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ADVANCED LEVEL NATIONAL EXAMINATIONS, 2016, TECHNICAL AND PROFESSIONAL TRADES

EXAM TITLE:

Technical Drawing and D.C.G

OPTION:

Construction (CST)

DURATION:

3hours

INSTRUCTIONS:

The paper is composed of three (3) main Sections as follows:

Section I: Fourteen (14) compulsory questions.

55 marks

Section II: Attempt any three (3) out of five questions.

30 marks

Section III: Attempt **any one (1)** out of three questions.

15 marks

The use of drawing materials is recommended.

Note:

Every candidate is required to carefully comply with the above instructions. Penalty measures will be applied on their strict consideration.

01.	What o	do you unders	tand by the	terms	below, us	ed in draw	ing?				
	A	. Scale		C. Le	ttering	E.	Reducing sca	ale			
	В	3. Title bloc		D. A	leader			5marks			
02.	What o	What do you understand by drawing board? 2mark									
03.	3. Give the standard size of drawing board according to the Indian Standard										
	Institution.										
04.	Outline FOUR domains where we need drawings and give the name of the										
	drawings related.										
05.	Enumerate any four characteristics of a good drawing.							2marks			
06.	What is meant by "dimensioning" in drawing?							2marks			
07.	Give the general rules for dimensioning.							3marks			
08.	List the types of lettering in drawing.							3marks			
09.	Give the THREE main uses of scales in engineering practices.							6marks			
10.	Classify the types of pencil according to their hardiness.							3marks			
11.	What do you understand by CAD? Give any TWO examples.							4marks			
12.	What are the types of roof construction?							3marks			
13.	Enumerate the types of angles existing in geometrical drawing.							6marks			
14.	Choose	e and outline	SIX (6) types	of po	lygons acc	ording to t	he number of	sides.			
		er _q				¥*	P	6marks			
Sec	tion II.	Choose and a	answer any	three	(3) questi	ons.		30marks			
15.	Rewrit	te and fill in	the followin	g stat	tements w	ith appro	nriate answer	s chosen			
	from b		12	9		uppro	P-1400 41151101				
	a) The building construction industry relies on sets of drawings to con-										
	hom	nes and comm	ercial buildii - <i>Mechan</i>		_	Architact	ural working				
			- Isometri			Architect	urai working				
		The text height for room names should be set to for a drawing that will be									
	plot	ted to a scale			F" . 6"	0//)					
	a) The	omoloitootuumol			5"; 6"		111	22 11			
i		architectural plan firs		пу ве	gins a set	oi working	drawings by o	creating the			
			- Founda	tion	-]	Elevation					
		2.5	- Floor plo	ın	- E	Building see	ction				
		1) Once the architect has finalized the house plans with the client any changes to the									
	desi	gn requested			172						
			Change order Modification :		- Wh	iole new se	et of drawings	*			

)	e)								
		customary to include a on the electrical sheet. - List - electrical legend							
		- part number - electrical layer							
:	f)	On a floor plan the dashed line that appears approximately 24" outside the exterior wall represents the							
		- Sidewalk - plumbing drain lines - roof overhang							
	g)	The site plan illustrates							
		 the floor plan where the house sits on the property the roof plan where the garage and driveway are located 							
	h)	Generally, the units used on an architectural drawing are set to							
		- Architectural - metric - engineering - civil							
,	i)	Elevation drawings will include information about							
		roof pitchSidingwindow style							
	j)	There are two main types of projection:							
		 Parallel and Orthographic Parallel and Convergent Perspective and Parallel 							
16.	N:	ame the types of scaling used here below:							
	A								
		1) 1:50 2) 1:1 3) 5:1							
	В	3. What do you understand by an arc? Give the process followed to find the center of an arc. 10marks							
17.	A.	. Give the styles of freehand lettering. Give also their sub-types.							
	В	Spacing is the distance which is to be left between two adjacent letters in lettering.							
		What are the rules for the space between two lines? 10marks							
18.	A	A. What is the value of the angle between the isometric axes?							
	В	. What is a master plan?							
	C	C. If you are given to draw a classroom, what are the main things that you							
		may take into consideration and why?							
19.	In	ndustrial objects are manufactured in different materials.							
	U	se the conventional lines to indicate the material presented below: 10marks							
		 a. Steel, Cast iron, Copper b. Lead, Zinc, White metal c. Brass, Bronze, Gun metal d. Glass e. Porcelain Stoneware, marble 							

- 20. With free hand drawings, show the different types of windows hung.
- 21. Following the information given below, produce a floor plan view.
 - Draw a 12000 x 14000 mm house, with 3 beds rooms, 2 bath room, kitchen, living and dining room.
 - The entrance double door and single door are 1600 x 2400 mm and 1000 x 2400 mm respectively, internal doors are 900 x 2100 mm, big windows are 1500 x 1500 mm and the small ones are 600 x 900 mm.
 - The scale is 1/100 and all the dimensions in mm.
- 22. Reproduce this floor plan at the scale of 1/50, and if the elevation view shown is E-03

