UNIT TEST (2023-24)
Class: XI
Date:30.05.2023
Sub: ENGINEERING GRAPHICS (046)
Max Marks: 30
Set - 1
Time : 1 hour

## General Instructions:

(i) Attempt all the questions.
(ii) Use both sides of the drawing sheet, if necessary.
(iii) All dimensions are in millimeters.
(iv) Missing and mismatching dimensions, if any, may be suitably assumed.
(v) Follow the SP: 46 - 2003 revised codes. (with first angle method of projection)

## SECTION - A

1. Which of the following is represented by a thick continuous line?
a) Construction line
b) Visible outlines
c) Hatching lines
d) Leader lines
2. How many minimum points are required to make a circle, if radius is not given?
a) 2
b) 5
c) 3
d) 4
3.The size of a A 2 drawing sheet is
---------
a) $841 \times 1189$
b) $594 \times 841$
c) $420 \times 594$
d) $210 \times 297$
3. 



Identify the type of line shown in the figure?
a) Leader line
b) Axis line
c) Hatching line
d) Dimension line
5. Identify the given polygon?

a) Pentagon
b) Hexagon
c) Nonagon
d) Octagon
6. Pick the odd one out from the following?
a) Trapezion
b) Square
c) Rectangle
d) Pentagon

## 7. Match the LIST I with LIST II

| LIST I - TYPES OF LINES | LIST II - GENERAL APPLICATIONS |
| :--- | :--- |
| 1.Continuous thin | i) Hidden edges |
| 2. Continuous thick | ii) Centre lines |
| 3. Chain thin | iii) Dimension lines |
| 4. Dashed thick | iv) Visible edges |

a) 1-iii, 2-iv, 3-ii, 4-i
b) 1-i, 2-iii, 3-ii, 4-iv
c) 1-iv, 2-iii, 3-ii, 4-i
d) 1-ii, 2-i, 3-iv, 4-iii

Q8. to 10: Read the following paragraph and answer the questions given below

Amit is an Engineering graphics student of grade XI. He became very passionate with this subject. His EG teacher has explained about all the drawing equipment's used inside the lab. Now he is trying to sketch a 3D figure using all these drawing equipment's.
8. Amit is using a special kind of instrument which is a combination of scale and protractor, Name that instrument?
a) Set square
b) T square
c) Mini drafter
d) French curves
9. For drawing circles of different radius he can use -----------
a) Compass
b) Divider
c) T scale
d) Mini drafter
10. Amit highlighted all the visible edges of his 3D figure using a particular grade of Mechanical pencils. Name the grade of pencil which he might have used?
a) 0.3 mm
b) 0.5 mm
c) 0.7 mm
d) 0.2 mm

## SECTION B

$$
2 \times 2=4
$$

11. Construct a Right-angled triangle ABC , having its altitude $\mathrm{BA}=40 \mathrm{~mm}$ and its hypotenuse $=$ 50 mm .
12.Draw a circle, passing through three given points $\mathrm{A}, \mathrm{B}$ and C , which are not in a straight line.

$$
2 \times 3=6
$$

13. Construct a triangle CAB , having its perimeter $\mathrm{EF}=95 \mathrm{~mm}$ and its sides in the ratio of 4:7:5.
14. Construct a trapezium ABCD , having its sides $\mathrm{AD}=30 \mathrm{~mm}, \mathrm{DC}=25 \mathrm{~mm}, \mathrm{CB}=35 \mathrm{~mm}$ and the difference of the sides $=20 \mathrm{~mm}$.

$$
2 \times 5=10
$$

15. Construct a regular hexagon with base $\mathrm{AB}=40 \mathrm{~mm}$ using protractor, now inscribe a circle in it.
16. Construct a regular Pentagon of 30 mm using compassess.

## SECTION - A

| Q.NO | ANSWERS |
| :--- | :--- |
| $\mathbf{1}$ | b) Visible outlines |
| $\mathbf{2}$ | c) 3 |
| $\mathbf{3}$ | c) $420 \times 594$ |
| $\mathbf{4}$ | d) Octagon |
| $\mathbf{5}$ | d) Pentagon |
| $\mathbf{7}$ | a) 1-iii, 2-iv, 3-ii, 4-i |
| $\mathbf{8}$ | c) Mini drafter |
| $\mathbf{1 0}$ | c) 0.7mm line |

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