

Std. XII SOFTWAREAPPLICATIONS

SYLLABUS FOR ACADEMIC YEAR 2026-2027 onwards

I. THEORY (50 MARKS)

Unit I. Drawing Software

(25 marks)

1. Introduction and opening screen
 - a. Uses and advantages in Desktop Publishing
 - b. Screen Components: Menu bar, Standard toolbar, Property bar, Toolbox, Work area, Document Navigator, Scrollbars, Dockers, Colorpanels, Status bars, Rulers, Zoom and Pan tools.
 - c. Create, open, save, import, export, preview and print documents
 - d. Drawing tools: Line, Rectangle, Ellipse, freehand, Bezier, artistic media, dimension tool, Polygon, Star, Graph, Spiral
2. Working with text
 - a. Artistic text - applying artistic effects, fit text to path, break apart text
 - b. Paragraph text – applying paragraph effects, wrapping text around objects, columns, drop caps, bullets, line spacing, word spacing, character spacing, find and replace, spelling, grammar and thesaurus, hyphenation, change case
 - c. Converting from one type to another
 - d. Break apart text and Converting artistic text to curves
3. Working with Objects
 - a. Outline tool
 - b. Copying, Duplicating, Cloning objects, transformations and effects
 - c. Shape tool, types of nodes
 - d. Knife and Eraser tools
4. Selecting objects
 - a. Selecting single and multiple objects
 - b. Selecting objects inside group
 - c. Deselecting objects
5. Filling Objects
 - a. Uniform or solid fill, color models, RGB, HSL, CMYK, etc
 - b. Fountain or gradient fill – two color and custom color blends
 - c. Texture fill
 - d. Pattern fill – two color, full color and bitmap fills
 - e. Postscript fill
6. Arranging objects
 - a. Positioning, Moving, Nudging, Aligning, distributing, Sizing, scaling, Rotating, mirroring, ordering Combining and breaking objects
 - b. Grouping, ungrouping, Locking and unlocking objects
 - c. Layers: Uses, creating, hiding, Showing, deleting
 - d. Shaping objects with weld, trim, intersect, simplify, create boundary
7. Special Effects
 - a. Perspective, Power Clip, Lenses
 - b. Interactive tools: Blend, Contour, Extrude, Envelope, Distort, Drop shadow, Transparency, Fill

Unit II. Photo Editing Software

(25 marks)

The Working Environment

- a. The Opening Screen Environment
- b. Menus, Workspace, Toolbox, Panels, Swatches, and Styles
- c. Ruler Guides and Grid

Opening & Saving Files

- a. Opening Images and saving images
- b. The File Browser
- c. Importing Files – From Scanner and Digital Cameras, Exporting Files
- d. Graphic file formats: PSD, JPEG, TIFF, GIF, BMP

Making selections

- a. Selection tools
- b. Modifying & Transforming selections, combining selections, Feathering selections
- c. Grow and Similar commands
- d. Quick selection
- e. Selection masks
- f. Redefine edge, content aware fill
- g. Zooming and panning

Working with Colors

- a. Foreground and Background Colours
- b. Eye Dropper, Color Picker, Colour Panels
- c. Image adjustments: Brightness/Contrast, Shadows, Midtones, Highlights, Hue, Saturation, Levels, histograms
- d. Auto color, auto contrast, auto levels
- e. Match color command

Painting & Editing tools.

- a. Line, Rectangle, Ellipse, Polygon, Custom Shape, Paint Brush and Pencil, Brushes Panels, Paint Bucket, Path Selection, Pen, Gradient tool
- b. Creating shapes
- c. Eraser, Clone Stamp, Healing Brush, Spot Healing Brush, Patch Tool, Art History Brush
- d. Blur, Sharpen & Smudge tools, Red Eye Tool, History Brush,
- e. Dodge, Burn, Sponge tools

Working with Images

- a. Image modes – RGB, CMYK, Greyscale, Bitmap mode
- b. Cropping, resizing, resampling, rotating, flipping

Working with Layers

- a. Layers Panels
- b. Creating, Merging, Reordering, Renaming, Removing, Hiding/Showing layers
- c. Creating layer from selection
- d. Copying layer to another image
- e. Applying layer effects: Layer styles, Layer blending modes and Opacity

Working with types.

- a. Type tool
- b. Point type and Paragraph type
- c. Typing on a path
- d. Character panels and paragraph panels
- e. Warping text

Applying Filters

- a. Artistic, Blur, Texture, Sharpen, Distort, Noise, Liquify

II. PRACTICALS (100 marks)

First Term 50 1. File 10 2. Writeup 10 3. Viva 10 4. Innovative/Creativity 10 5. Presentation/Output 10	Second Term 50 1. File 10 2. Writeup 10 3. Viva 10 4. Innovative/Creativity 10 5. Presentation/Output 10
Drawing Software 1. Company Logo 2. Victory Stand 3. Roll Of Honor 4. Gear 5. Necklace 6. Node Editing 7. Greeting Card 8. Advertisement	Photo Editing Software 1. Compositing (Using Multiple Layers) 2. Chocolate (Layer Styles) 3. Spider Web (Distort Filter) 4. Cracked face effect 5. Convert Black And White ToColor 6. Restoring Old Photographs 7. Collage effect 8. Fire Text

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PROFORMA FOR ANALYSIS OF QUESTION PAPER

Subject: Software Applications

Year of Examination: _____

Class: XII Computer Technique

Max. Marks: 50

Time allotted: 2 hrs

1. Sections if any: - YES – Section A and B.

2. Total No. of questions and marks: -

No. of questions set in the paper	No. of questions to be attempted	Total marks for all the questions set in the paper	Maximum marks for attempted questions
28	28	50	50

3. Study of options:

(a) Overall options in the whole question paper:- -NO-

(b) Overall options within the sections: - -NO-

(c) Overall options within a question: - -NO-

(d) Internal option within the question: - -NO-

(e) Comparability options: -

4. Instructions for examiners: - Evaluate as per pattern

5. Directions in individual question: - -NIL-

6. Allocation of marks question-wise and part-wise: -

Question 1-5 (Section A) and 15-19 (Section B) are Multiple Choice Question 1 mark each

Question 6-12 (Section A) and 20-26 (Section B) are answer in 2 sentences 2 marks each

Question 13-14 (Section A) and 27-28 (Section B) are answer in 3-4 sentences 3 marks each

7. General format

(a) Arrangement of question, numbering and printing etc.

1,2,3...up to 28

8. Question - wise analysis

Sr. no.	Objective	Content Area Major area of content topic	Form of the questions	Language of Questions	Definiteness of the answers	Difficulty level of the questions	Marks allotted	Time in min.
1	K	Drawing Software	VSA	English	Definite	Easy	1	1
2	K		VSA		Definite	Easy	1	1
3	K		VSA		Definite	Easy	1	1
4	K		VSA		Definite	Easy	1	1
5	K		VSA		Definite	Easy	1	1
6	K		SA-I		Partly definite	Average	2	5
7	K		SA-I		Partly definite	Average	2	5
8	K		SA-I		Partly definite	Average	2	5
9	U		SA-I		Partly definite	Average	2	5
10	U		SA-I		Partly definite	Average	2	5
11	U		SA-I		Partly definite	Average	2	5
12	K		SA-I		Partly definite	Average	2	5
13	U		SA-II		Not definite	Difficult	3	10
14	K		SA-II		Not definite	Difficult	3	10
15	K	Photo Editing Software	VSA		Definite	Easy	1	1
16	K		VSA		Definite	Easy	1	1
17	K		VSA		Definite	Easy	1	1
18	K		VSA		Definite	Easy	1	1
19	K		VSA		Definite	Easy	1	1
20	U		SA-I		Partly definite	Average	2	5
21	U		SA-I		Partly definite	Average	2	5
22	K		SA-I		Partly definite	Average	2	5
23	U		SA-I		Partly definite	Average	2	5
24	U		SA-I		Partly definite	Average	2	5
25	K		SA-I		Partly definite	Average	2	5
26	U		SA-I		Partly definite	Average	2	5
27	K		SA-II		Not definite	Difficult	3	10
28	U		SA-II		Not definite	Difficult	3	10

A. Weightage to Objectives:

Sr. No.	Objectives	Weightage	
		Marks	Percentage
1	Knowledge	18	36%
2	Understanding	22	44 %
3	Application	6	12 %
4	Skill	4	8 %

B. Weightage to Content/Subject Units

Sr. No.	Units	No. of Questions	Marks	Percentage
1	Drawing Software	14	25	50%
2	Photo Editing Software	14	25	50%

C. Coverage of topics

No. of topics in the syllabus	Topics covered	Percentage
02	02	100%

D. Weightage to form of questions

Sr. No.	Form of questions	Marks for each question	No. of questions	Total Marks	Percentage
1	Very Short Answer Type (VSA)	1	10	10	20%
2	Short Answer Type (SA-I)	2	14	28	56%
3	Short Answer Type (SA-II)	3	4	12	24%
	Total	50	28	50	100%

E. Definiteness of Questions:

Definiteness	No. of questions	Marks	Percentage
Definite	16	22	44%
Partly Definite	10	22	44 %
Not Definite	2	6	12 %

F. Difficulty Level

Levels of difficulty	No. of Questions	Marks	Percentage
Easy	16	22	44 %
Average	10	22	44 %
Difficult	4	6	12%

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BLUE PRINT

Duration: - 2 hours

Subject: Software Applications

Maximum marks: - 50

Objectives → ↓ Content Area	Knowledge				Understanding				Application				Skill				Total
	VSA	SA-I	SA-II	LA	VSA	SA-I	SA-II	LA	VSA	SA-I	SA-II	LA	VSA	SA-I	SA-II	LA	
1. Drawing Software	5(1)	2(2)	-----	-----	-----	4(2)	1(3)	-----	-----	-----	1(3)	-----	-----	1(2)	-----	----	14(25)
2. Photo Editing Software	5(1)	2(2)	-----	-----	-----	4(2)	1(3)	-----	-----	-----	1(3)	-----	-----	1(2)	-----	----	14(25)
Total	10(10)	4(8)	-----	-----	-----	8(16)	2(6)	-----	-----	-----	2(6)	-----	-----	2(4)	-----	----	28(50)
	14(18)				10(22)				2(6)				2(4)				

Note: Figures outside the brackets indicate the number of questions and figures within brackets indicate marks.

For example, 4(2)*.(*indicates option)

MODEL QUESTION PAPER**Time: 2 hours****SOFTWARE APPLICATIONS****Total No. of Questions: 28****(Printed Pages: 02)****Maximum Marks: 50****Instructions:**

- (a) All questions are compulsory.
- (b) The question paper consists of 28 questions divided into TWO section A and section B.
- (c) Section A contains 14 questions from Unit I: Drawing Software.
- (d) Section B contains 14 questions from Unit II: Photo-editing Software.
- (e) Question 1-5 AND 15-19: Multiple Choice Questions
- (f) Question 6-12 and 20-26: Answer in 2 sentences.
- (g) Question 13-14 and 27-28: Answer in 3-4 sentences
- (h) Figures to the right indicate marks allotted to each question.

SECTION A

1	The method of moving an object by a fraction of the nudge distance: • Micro-nudge • Nudge • Super-nudge • Stretch	1
2	Keyboard shortcut for Align Centers Horizontally command is: • C • CTRL + E • E • CTRL + C	1
3	The command that creates a single object with common fill and outline attributes when applied to two or more selected objects: • Simplify • Combine • Weld • Intersect	1
4	A detachable bar that contains shortcuts to menu and other commands: • Menu Bar • Property Bar • Toolbar • Title Bar	1
5	The lens that lets you create the effect of an infrared image by mimicking the heat levels of colors in object areas beneath the lens: • Invert • Custom Color Map • Heat Map • Color Limit	1

6	What is a vanishing point? How is it represented in the drawing?	2
7	Name any four attributes that you can assign to an outline.	2
8	Differentiate between star and polygon as star.	2
9	Write the use of freehand tool and Bezier tool.	2
10	What is the difference between cusp node and smooth node?	2
11	Differentiate between weld and group?	2
12	Draw Shape tool and Pan tool	2
13	Explain with illustrations, the three types of contours.	3
14	Write the steps to create the Victory Stand.	3
SECTION B		
15	Luminosity, darken, exclusion and color dodge are examples of: • Filters, • Blending options • Image adjustments • Layer modes	1
16	The typical size for a graphic design is measured in _____. • Pica • Pixels • Points • Inches	1
17	The Panel that deletes a series of steps that have been used in a graphic design: • Layer, action • History • Path color • Swatch	1
18	Identify the tool  • Sponge tool • Healing Brush tool • Clone tool • Eraser tool	1

19	Keyboard shortcut to activate Dodge tool: • D • O • V • U	1
20	What are the five key decisions involved in creating a new image?	2
21	Name four criteria on which you can make selections using the Colour Range dialog.	2
22	What is the difference between the Image Size and Canvas Size commands?	2
23	Name at least two differences between using the Crop command and the Crop tool.	2
24	What is the difference between the Grow and Similar commands?	2
25	What are the four 'Type tool' variations?	2
26	Describe how to add to, remove from and move a selection.	2
27	Write the use of Magic wand, Crop and Eye Dropper tools	3
28	Write steps to create a Spider Web.	3

-END-

SUB: SOFTWARE APPLICATIONS**MODEL ANSWER KEY**

Question Number	Model Answer	Marking Scheme
SECTION A		
1	The method of moving an object by a fraction of the nudge distance:	1
Ans	Micro-Nudge	
2	Keyboard shortcut for Align Centers Horizontally command is:	1
Ans	E	
3	The command that creates a single object with common fill and outline attributes when applied to two or more selected objects:	1
Ans	Combine	
4	A detachable bar that contains shortcuts to menu and other commands:	1
Ans	Toolbar	
5	The lens that lets you create the effect of an infrared image by mimicking the heat levels of colors in object areas beneath the lens:	1
Ans	Heat Map Lens	
6	What is a vanishing point? How is it represented in the drawing?	2
Ans	A feature that lets you give objects a three-dimensional (3D) look by creating the illusion of depth. You can change the direction and depth of extrude, the position of the vanishing point, its placement in 3D space, and its color. It is represented by 'X' 	

7	Name any four attributes that you can assign to an outline.	2
Ans	You can assign following attributes to an outline: Outline Color, Thickness Style, Corners and Arrows	
8	Differentiate between star and polygon as star.	2
Ans	Perfect stars: are traditional-looking stars and can have a fill applied to the entire star shape. Polygon as stars: have intersecting sides and produce original results with a fill applied.	
9	Write the use of freehand tool and Bezier tool.	2
Ans	Freehand tool - lets you draw single line segments and curves. Bezier tool - lets you draw curves one segment at a time.	
10	What is the difference between cusp node and smooth node?	2
Ans	Cusp: The control points of a cusp node move independently from one another. A curve that passes through a cusp node can bend at a sharp angle. Smooth: The control points of a smooth node are always directly opposite each other. When you move one control point, the other moves also. The control points of a smooth node may be of different lengths. Smooth nodes produce a smooth transition between line segments.	
11	Differentiate between weld and group?	2
Ans	Welding several objects binds them together to create one object with a single outline. This new object uses the welded objects' perimeter as its outline, and all intersecting lines disappear. When you group two or more objects, they are treated as a single unit but retain their individual attributes. Grouping lets you apply the same formatting, properties, and other changes to all the objects within the group at the same time. In addition, grouping helps prevent accidental changes to the position of an object in relation to other objects.	
12	Draw Shape tool and Pan tool	2
Ans	Shape Tool -  Pan Tool - 	

13	Explain with illustrations, the three types of contours.	3
Ans	Original Contour Outside Contour Inside Contour To Center	
14	Write the steps to create the Victory Stand.	3
Ans	1. Draw a rectangle using rectangle tool 2. Mirror it and create 2 more copies 3. Increase height of middle one to tall, and right side to medium, left short 4. Select all rectangles using selection window around them 5. Select Arrange→Shaping→Weld... click on one of rectangles 6. Select interactive extrude tool and drag over the object to give a 3D look 7. Adjust the depth of the extrusion by dragging the slider 8. Select Lighting and select a bulb and keep it on top left of the cube 9. Select text tool and type the numbers as required 10. Save the drawing	
SECTION B		
15	Luminosity, darken, exclusion and color dodge are examples of: • Filters, • Blending options • Image adjustments • Layer modes	1
Ans	Layer modes	
16	The typical size for a graphic design is measured in _____.	1
Ans	Pixels	
17	The Panel that deletes a series of steps that have been used in a graphic design: • Layer, action • History • Path color • Swatch	1
Ans	History	

18	Identify the tool  • Sponge tool • Healing Brush tool • Clone tool • Eraser tool	1
Ans	Healing Brush tool	
19	Keyboard shortcut to activate Dodge tool: • D • O • V • U	1
Ans	O	
20	What are the four key decisions involved in creating a new image?	2
Ans	Name of the image, Width, Height, Resolution, and Colour space or mode.	
21	Name four criteria on which you can make selections using the Colour Range dialog.	2
Ans	Sampled colours (using an Eyedropper), Preset Colors, highlights/midtones/shadows, or Out of gamut colours.	
22	What is the difference between the Image Size and Canvas Size commands?	2
Ans	Image Size scales the content when it changes the document dimensions while Canvas Size only changes the document dimensions.	
23	Name at least two differences between using the Crop command and the Crop tool.	2
Ans	With the Crop command, the area you want to keep is first defined by using a Marquee tool to create a selection border. The Crop command has no options, unlike the Crop tool which has many. The Crop tool gives you the option of hiding or deleting areas beyond the crop boundaries while the Crop command will always delete the extra areas.	

24	What is the difference between the Grow and Similar commands?	2
Ans	Grow will add adjacent pixels to a selection while Similar will add both adjacent and non-adjacent pixels.	
25	What are the four 'Type tool' variations?	2
Ans	Horizontal Type tool, Vertical Type tool, Horizontal Type Mask tool, and Vertical Type Mask tool. Point type doesn't have a bounding box while paragraph type does. Point type is created when you begin by clicking with the Type tool in the image. Paragraph type is created when you define an area for the type that becomes a bounding box. Point type doesn't wrap automatically so its line length will continue until you stop typing or enter a carriage return to force a line break. Paragraph type wraps automatically when you reach the boundary of the bounding box.	
26	Describe how to add to, remove from and move a selection.	2
Ans	Add to selection: You can add to a selection by holding down the Shift key or by clicking on the second box in the Tool Options panel and then creating another selection. Remove from Selection: Holding down the Alt (Option) key or clicking on the third box in the Tool Options panel and then creating another selection will remove from your selection. Move a Selection: To move a selection, click on a selection tool and click and drag within your active selection. Alternately, you can use the directional arrow keys to nudge a selection as long as the Move tool isn't the active tool.	
27	Write the use of Magic wand, Crop and Eye Dropper tools	3
Ans	Magic Wand(W) : Selects all objects in a document with the same or similar fill color, stroke weight, stroke color, opacity or blending mode. Crop (C): You can use the Crop tool to trim or scale an image. Eye Dropper(I): Takes color samples from colors on the page and displays them in the Color Boxes.	

28	Write steps to create a Spider Web.	3
Ans	1. Select rectangle selection tool, draw a rectangle. 2. Select grey color and press alt+backspace 3. Create copies of the rectangle by holding alt and dragging 4. Merge all the copies 5. Create a new layer 6. Select elliptical selection tool 7. Apply stroke using edit stroke 8. Only half part of stroke is required 9. Mark the half part of stroke using rectangular selection and press delete 10. Make copies by holding alt and dragging 11. Merge the copies 12. Merge all the layers 13. Select filter >> distort >> polar co-ordinate >> rectangular to polar 14. Save the image.	