

## GRADE: VIII

# COMPUTER SPECIMANCOPY

TERM - II

YEAR 2022 - 23

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- Photoshop: An image editing software.
- Resolution: Refers to the number of pixels.
- RGB: Stands for Cyan, Magenta, Yellow and Black.

#### **ENRICH YOURSELF:**

- Right click on the Adobe Photoshop CS6 application in the start menu, and select Pin to start.
- All panels of the Photoshop can be placed anywhere on the screen.
- If you want to select an elliptical or circular area of an image, you can use the Elliptical Marquee Tool.

#### **INFO:**

- Thomas Knoll, invented the first version of Adobe Photoshop in 1987 known as Display
   Program.
- Photoshop files are saved with .psd/.pddextensions.

#### **FAST FORWARD:**

- Press M to simply select the Rectangular Marquee Tool.
- Press L to select the Lasso Tool.
- You can deselect the selected area by pressing Ctrl + D keys.

#### **EXERCISES:**

Q:	A	Tick	(√)	the	correct	options.
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		_	
1)	Which of the following	is not a selection tool?	3.5
	a) Lasso	b) Rectangular Marquee	c) Paint Bucket
2)	Which of the following	is used to select an image or part of	it in circular shape?
	a) Rectangular Ma	arquee b) Brush	c) Elliptical Marquee
3)	What is the default exte	ension of an Adobe Photoshop file?	
	a) . <u><b>PSD</b></u>	b) psp	c) .ppp
4)	Which tool allows to re	emove unwanted portion of an image?	?
	a) Move Tool	b) Cut	c) <u><b>Crop</b></u>
5)	Which tool is used for	making freehand selection?	
	a) Brush	b) <u>Lasso</u>	c) None

#### Q: B Fill in the blanks.

- 1) Working area of photoshop is called **canvas**
- 2) The **panel dock** contains various panels of photoshop.
- 3) Every Photoshop CS6 document contains at least **one** layer.
- 4) **Resolution** refers to the number of pixels.
- 5) The large dark Grey area in Photoshop window is called workspace.

#### Q: C State True or False.

1) Photoshop is an image – editing software. True

2) You can show or hide all the panels by pressing Tab key. **True** 

3) Tools panel is placed in the left most corner of the screen by default. True

4) Only one layer can be added to a document. **False** 

5) Styles panel allows to view, select and apply preset layer styles. True

#### Q: D Match the columns.

#### Column A

1) Ctrl + D

- 2) Window menu
- 3) Double arrows on a panel
- 4) Small triangle.
- 5) Place option

#### Ans: 1- B, 2- C, 3- A, 4- E, 5-D

#### Q: E Short Answer questions.

1) What is Photoshop?

Ans: Photoshop is an image editing software developed by Adobe Systems.

2) What is the use of Layers panel?

Ans: It displays all layers, groups and layers effects of graphics and helps to work on different levels that can be viewed and edited as individual units.

3) What is the use of Crop Tool?

Ans: The Crop Tool allows you to remove unwanted area of an image.

4) List names of any five tools of the Tools panel in Photoshop.

Ans: Move Tool, Blur Tool, Lasso Tool, Crop Tool, Clone Stamp tool

5) Write down the names of two Selection tools.

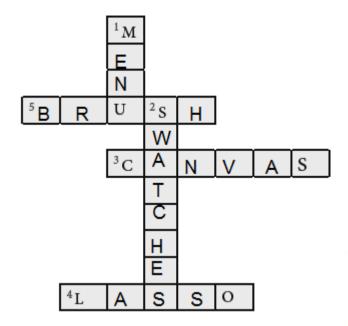
Ans: Rectangular Marquee Tool, Lasso Tool and Crop Tool

- a. To collapse or expand panels
- b. To deselect the selection
- c. To select a panel
- d. To place multiple files on the canvas.
- e. To view hidden tools

Column B

#### **BRAIN TEASER:**

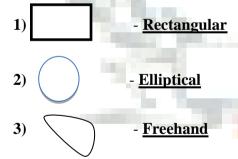
#### Q: A Solve the crossword with the help of the given clues:



#### **Clues:**

- 1) It is the topmost bar of photoshop window.
- 2) It is a panel that allows to select brush color, mode and opacity.
- 3) It is a rectangular white area.
- 4) It is used to make freehand selections.
- 5) It fills the image with strokes of desired colors.

#### Q: B Identify the selection on images.



- **Edge:** A line segment on the boundary.
- Pixel: A tiny area of illumination on a display screen, one of many from which an image is composed.
- Adjacent : Close to or near something.

#### **INFO**:

Press the Alt key while dragging the image using the Move Tool, it will give a copy of the selected image.

#### **EXERCISES:**

Q:	A	Tick	(√)	the	correct	options.
----	---	------	-----	-----	---------	----------

1)	Which of the following is not	a selecti <mark>on tool?</mark>			
	a) Magic Wand Tool	b) Lasso. Tool	c) Stamp Tool		
2)	Which tool is used to remove	the unwanted part of an image?			
Ľ	a) Stamp Tool	b) <u>Eraser Tool</u>	c) Clone Tool		
3)	Which tool is used to relocate	an image?			
4	a) Eraser Tool	b) Gradient Tool	c) Move Tool		
4)	Which tool selects similar pix	tel <mark>s on an image and a</mark> llows you to	delete them?		
	a) Eraser Tool	b) Magic Eraser Tool	c) Crop Tool		
5)	Which of these holds the sele	cted Tool's properties?	40.0		
	a) Options bar	b) Tools panel	c) <u>Selection bar</u>		
BF	B Fill in the blanks.				

#### Q:

- 1) The <u>pattern Picker</u> box contains the created patterns.
- 2) Photoshop provides three variations of Eraser Tool.
- 3) You need to **select** an image prior to moving it.
- 4) Higher the **opacity**, more the number of pixels erased.
- 5) Resolution refers to the number of **pixels**.

#### **Q:** C State True or False.

1)	The Magic Wand Tool helps you select defined areas of an image	<u>False</u>
2)	The Text Tool is used to add images.	<u>False</u>
3)	The Spot Healing Brush Tool repairs the imperfections of an image.	<b>True</b>
4)	Gradient Tool is used to fill an area with a range of colors.	<b>True</b>
5)	Stamp Tool also helps you move the images.	<b>False</b>

#### Q: D Match the columns.

#### Column A

- 1) Magic Eraser a. Fills selected part of image with blend of colors
- 2) Gradient Fill b. Paints an image using predefined pattern.

Column B

- 3) Quick Selection c. Clears the unwanted spots in an image.
- 4) Spot Healing Brush d. Erases the same colored pixels.
- 5) Pattern Stamp e. Select the defined edges of an image.

Ans: 1 - d, 2 - a, 3 - e, 4 - c, 5 - b

#### Q: E Short Answer questions.

1) List any two Selection tools?

Ans: Lasso Tool, PaintBucket Tool

2) Write the use of Move Tool?

Ans: The Move Tool is used to move images or part of images from one location to another.

3) Describe the use of Text tools.

Ans: The Text Tool is used to add text in an image.

4) List any two Eraser Tools.

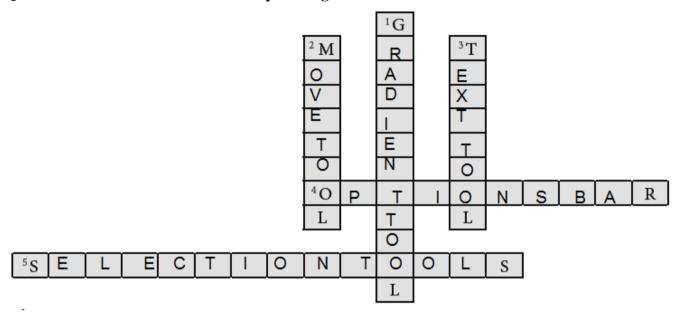
Ans: Background Eraser Tool and Magic Eraser Tool

5) What is Gradient Tool?

Ans: The Gradient Tool creates blend of two or more colors and fills an area or an entire image.

#### **BRAIN TEASER:**

#### Q: A Solve the crossword with the help of the given clues.



#### **Clues:**

- 1) It creates blend of two or more colors.
- 2) It is used to move selected part of image at the new location.
- 3) It helps in adding text to the image.
- 4) It holds different options for the selected Tool.
- 5) These tools help in selecting an area of the image or the entire image.

#### Q: B Identify these tools and name them.

1. Quick selection tool

2. Eraser tool

3. Pattern stamp tool

4. Healing brush tool

5. Text tool

#### **WORKSHEET 3**

#### Q: A Solve the following crossword with the help of the given clues.

#### **Hints:**

- 1) It selects the adjacent area of the same color pixels in an image.
- 2) It is a large dark Grey area in the Photoshop window.
- 3) It is a rectangular window that appears with an empty white canvas.
- 4) It helps you to paint your image as desired in Photoshop.
- 5) It contains some different panels.

#### Q: B Describe the following.

- 1) Move Tool It is used to move images, or part of images from one location to another.
- 2) Gradient Tool It is used to fill an area or entire image with a range of colors. It creates blend of two or more colors.
- 4) Healing Brush Tool It allows to fix image perfections such as scratches, blemishes, etc. by sampling the surrounding area or using a predefined pattern. It helps to blend the imperfections into the rest of the image.
- 5) Clone Stamp Tool It allows to create a copy of the image. The process involves a sampling point in the image which will be used as a reference to create a new clone.



- Loop: A sequence of instructions that is continually repeated until a certain condition is met.
- Argument: A value or a variable that is given to a function to perform operation.

#### **INFO**:

- The test condition/expression may be any condition, and TRUE may be any nonzero value.
- The iterating variable, which is located after the keyword for is called the loop index.
- The range () function generates lists containing arithmetic progressions.

<b>EXERCISES:</b>		72.5				
<b>Q:</b> A Tick ( $$ ) the correct op	tions.	100				
1) Which of these is no	1) Which of these is not a looping structure?					
a) <u><b>If</b></u>	b) For	c) While				
2) What is execute if c	ondition associa <mark>ted witl</mark>	n the while loop is True?				
a) Else stateme	a) Else statement b) A block of while statements					
c) None of thes	c) None of these					
3) Which of the follow	ring loops can be nested	in Python?				
a) While	b) For	c) Both a and b				
4) Which of the follow	4) Which of the following is a sequence data type?					
a) Integer	b) String	c) <u>List</u>				
5) Which of the follow	5) Which of the following is a correct example of list?					
a) Num=[1 2]	b) Num=1	c) S=1				

#### Q: B Fill in the blanks.

- 1) A looping structure is also called a **repetition** structure.
- 2) In a while loop, if the condition becomes **False**, a program control passes to the line immediately following the loop.
- 3) An **infinite** loop results in a loop that never ends.
- 4) The **for** loop first evaluates a sequence if it contains an expression list.
- 5) The <u>range()</u> function generates lists containing arithmetic progressions.

#### Q: C State True or False.

1) Loops decrease the length of programs. True

2) The test condition in a loop may be on any condition, and TRUE may be any nonzero value. True

3) Python supports the else statement with a while loop. True

4) A variable which is located after the keyword for is called the loop index. True

5) If you omit the strp argument in a for loop, it defaults to 1. True

#### Q: D Match the columns.

#### Column A

- 1) Loop
- 2) Start and step
- 3) The else statement
- 4) The range () function
- 5) List

#### Ans: 1- C, 2 - D, 3 - E, 4 - a, 5 - B

#### Q: E Short Answer questions.

1) What is loop?

Ans A loop is a sequence of instructions that is continually repeated until a certain condition is met.

2) What is lop index?

Ans The iterating variable, which is located after the keyword for is called the loop index.

3) What is the role of else statement in the while loop?

Ans If we use the else statement with a while loop, the else statement is executed when the condition/expression associated with the while statement becomes FALSE.

4) What is infinite loop?

Ans A loop becomes infinite loop if a condition never becomes FALSE. This results in a loop that never ends. Such a loop is called an infinite loop.

5) Describe a list.

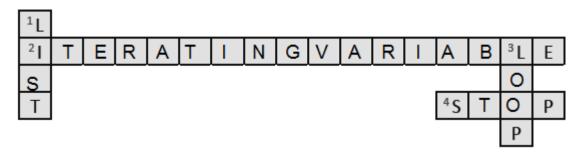
Ans List is a sequence data type. It is a series of values which are assigned by placing them within square brackets and separating them by commas.

#### Column B

- a. A built in function
- b. It can contain different data types.
- c. A repetitive structure
- d. Argument of the for loop
- e. It can be used in for and while loops.

#### **BRAIN TEASER:**

#### Q: A Solve the crossword with the help of the given clues



#### **Clues:**

- 1) It is a series of values which are assigned by placing them within square brackets and separating them by commas.
- 2) It is located after the for keyword and called the loop index.
- 3) It causes a section of your program to be repeated a certain number of times.
- 4) It is the last number of range where the range of a loop will end.
- Q: B Write the correct syntax for each of the following.
  - 1. Syntax of a for loop is:

for <iterating\_var> in

<sequence>:

statements(s)

else:

statements(s)

2. Syntax of while loop while expression:

statement(s)

statement(s)

3. Syntax of a for loop with range function for <iterating\_var> in

range(start, stop [, step]):

statements(s)

else:

statements(s)

```
Syntax of nested while loop

while expression:
    statements(s)
    while expression:
        statement(s)

statement(s)
```

- Computer ethics: Set of rules and regulations that govern the behaviour of an individual or a group while using the Internet.
- Cybercrime: A crime or activity that is done over the Internet using a computer.
- Cyber security: preventive measures to protect computer from hardware, software and data damage.

#### **ENRICH YOURSELF:**

• Like hacking, we often listen a term `cracking ` in computer online world. It is an act of breaking into a computer/ network and violating the system integrity with some malicious intent. Having gained unauthorized access, crackers can destroy vital data, deny legitimate user service, or cause problems for their targets.

#### **INFO:**

- The term Computer Ethics was first coined by Walter Maner.
- Anti-virus software is used to safeguard a computer from all types of viruses.

#### **EXERCISES:**

Q: A Tick ( $$ ) the correct ${ t opti}$	ons.	
1) The symbol © represents		
a) <b>Copyright</b>	b) Privacy	c) Priority
2) Fooling people with attractive f	Take offers is called	
a) Phishing	b) <u>Scam</u>	c) Malware
3) A person who steals the person	al information of someone for	causing frauds.
a) Cracker	b) Programmer	c) <u>Hacker</u>
4) It refers to the unauthorized cop	oyi <mark>ng, distribution or use of so</mark>	oftware.
a) Software overuse	b <u>) Software piracy</u>	c) Identify theft.
5) Computers make human life	·	
a) <b>Simple</b>	b) Complex	) Independent

#### Q: B Fill in the blanks.

- 1) Hacking refers to the unauthorized <u>intrusion</u> to a network or a computer.
- 2) A <u>worm</u> is a small piece of computer program that uses computer networks and security holes to replicate itself.
- 3) Cyber Security refers to measures to make the cyberspace safe and secure.
- 4) Criminals who perform illegal activities in cyberspace are referred to as cyber <u>criminals</u>.
- 5) A Trojan horse is an example of a virus.

#### Q: C State True or False.

Cybercrimes are performed using the Internet.
 Trojan horses have no way to replicate automatically.
 Counterfeiting is the illegal distribution of the software applications.
 Invading someone's privacy is a crime by law.

True

#### Q: D Match the columns.

#### Column A

- 1) Intellectual property right
- 2) Cyber Security
- 3) Internet piracy
- 4) Malware
- 5) Phishing

#### Column B

- a. Installing key loggers.
- b. Sending fake emails
- c. Install Anti-virus and firewall.
- d. Stealing someone 's ideas
- e. Downloading pirated software online

**Fals** 

#### Ans: 1- D, 2- C, 3- E, 4- a, 5- b

5) Copyright is used for protecting publishing rights.

#### Q: E Short Answer questions.

1) Define Computer Ethics.

Ans Computer Ethics are the set of rules to ensure safe use of computers.

2) What do you understand by privacy?

Ans It is a state in which one is not observed or disturbed by other people.

3) What is a virus?

Ans A computer virus is a type of malicious software that, when executed, replicates itself by modifying other computer programs and inserting its own code. When this replication succeeds, the affected areas are then said to be "infected" with a computer virus.

4) Write down few cyber Security tips.

Ans A few cyber security tips are:

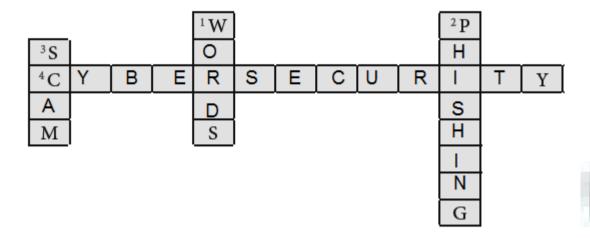
- i. Use strong passwords.
- ii. Secure your computer:
- a. Activate your firewall.
- b. Use antivirus.
- c. Block spyware attacks.
- iii. Be social media savvy.
- iv. Secure your mobile devices.
- v. Uninstall unnecessary software.
- vi. Maintain backups.
- Vii .Check security settings.

5) Define cyber terrorism.

Ans Cyberterrorism is the use of the Internet to conduct violent acts that result in, or threaten, loss of life or significant bodily harm, in order to achieve political gains through intimidation.

#### **BRAIN TEASER:**

#### Q: A Solve the crossword with the help of the given clues.



#### **Clues:**

- 1) Computer programs that replicate themselves.
- 2) It is a process of sending fake emails to get user's personal information.
- 3) It makes fool of the users by providing attractive offers.
- 4) Measures used for preventing cybercrimes.

#### B Complete the sentences.

- 1) Ethics are the set of rules and regulations that govern the acceptable behavior of an individual or a group while using a computer.
- 2) Worms are standalone malware computer program that replicates itself in order to spread to other computer.
- 3) Malware is Targets user's financial information by installing keyloggers onto the user's computer.

• AL: Artificial intelligence

• AR: Augmented speech recognition

● **ASR**: **Automatic** translation

• MT: Machine translation

 $\bullet$  **TTS**: Text – to – speech system

• **CORPUS**: Structured set of texts

• Utterance : Smallest unit of speech.

#### **ENRICH YOURSELF:**

- Corpus of text: It is a larger and structured set of texts. Linguistics, they are used to do statistical
  analysis and hypothesis testing, checking occurrence or validating linguistic rules within a
  specific language territory.
- Utterance: It is the smallest unit of speech, a continuous piece of speech beginning and ending with a clear pause.

#### **INFO**:

- One of the first commercial application of AR technology was the yellow "first down" line that began appearing in the televised football games in 1998.
- Machine Learning: It is an application of Artificial intelligence (AI) that systems the ability to automatically learn and improve from experience without being explicitly programmed. Machine learning focuses on the development of computer program that can access data and use it to learn for themselves.

#### **EXERCISES:**

Q:	A	Tick	(√)	the	correct	options.
----	---	------	-----	-----	---------	----------

1)	Light peak is introduced by	·	
	a) Lenovo	b) <u>Intel</u>	c) Dell
2)	John McCarthy introduced the terr	n	
	a) Artificial Intelligence	b) Electronic vibration	c) 4D printing
3)	Electro vibration was discovered in	n	
	a) 1970	b) <u><b>1954</b></u>	c) 1998
4)	Light peak uses	·	
	a) Copper wires	b) Optical cables	c) Twisted pair

5) Voice synthesis uses a) MT b) ASR c) TTS O: B Fill in the blanks. 1) **4D** printing can print objects larger than the printer. 2) Electro vibration is based on touch **receptors**. 3) **AR** works in real – time environments instead of Artificial environment. 4) **Light peak** provides speed up to 10 Gigabits /sec. 5) A branch of computer science **AI** pursues creating intelligent machines. Q: C State True or False. 1) Multi – touch technology offers swipe and tap functionality only. True 2) Light peak technology uses small connectors and thin, long cables. **True** 3) 4D printing uses heat, temperature and light for printing. **False** 4) Machine intelligence uses soft computing. True 5) Automation uses human intelligence. **False** Column A Column B 1) Intelligent robots a.TTS

#### Q: D Match the columns.

- 2) Corpus of text
- 3) Machine translation
- 4) Computational intelligence
- 5) Voice synthesis

#### Ans: 1- C, 2- D, 3- E, 4- b, 5-a

#### Q: E Short Answer questions.

1) What is the goal of Artificial intelligence?

Ans: The goal of artificial intelligence are as follows:

i. To create expert systems: The systems which exhibit intelligent behavior, learn, demonstrate, explain, and advice its users.

b. Soft computing

e. MT

c. Artificial Intelligence

d. Structured set of texts.

- ii. To implement human intelligence in machines: Creating systems that understand, think, learn, and behave like humans.
- 2) Define automation?

Ans: Automation is the technology by which a process or procedure is performed without human assistant.

3) Write down the benefits of augmented reality?

Ans: Following are the benefits of augmented reality:

i. Increased Sales: Products can be visualized in its "true" form before actually making a purchase.

- ii. Enriched Content: AR is a data-adding system that offers cultural, security and time saving benefits by providing real time information.
- iii. Improved Notoriety: AR helps the brand or the company to attract new audience as well as retain its existing customers.
- 4) Define intelligent apps?

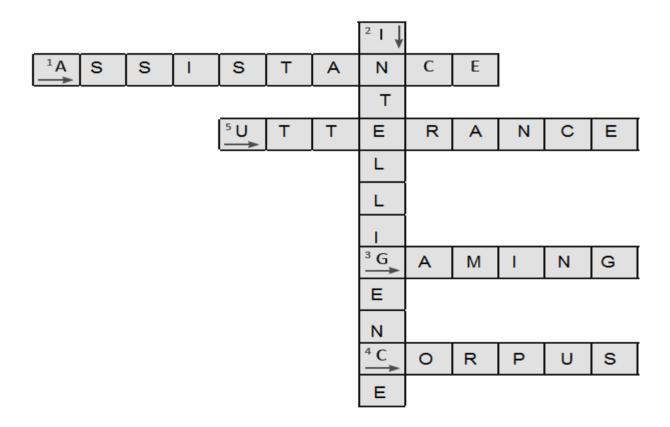
Ans: Intelligent app is a process that uses machine-learning technology for developing these apps using historical and real-time data for making predictions and decisions in order to offer rich, interactive and personalized experience to the users.

5) Define electro vibration technology.

Ans: Electro vibration is an outstanding technology which is based on an effect of touch receptors. Electrical charges are there which can easily create the feeling of localized vibration and friction.

#### **BRAIN TEASER:**

Solve the crossword with the help of the given clues.



#### **Clues:**

- 1) Automation is the technology by which processes are performed without humanassistance.
- 2) Soft computing is based on Computational intelligence
- 3) AI is very popular in Gaming.
- 4) Structured set of texts is called Corpus.
- 5) The smallest unit of speech is utterance.

#### **WORKSHEET 4**

#### Q: A Solve the following crossword with the help of the given clues.

#### Hints

- 1) It executes a block of statements interactively until a certain condition is met. **LOOP**
- 2) It refers to unauthorized intrusion into a computer or a network. **HACKING**
- 3) It is a standalone malware computer program that replicates itself. **WORM**
- 4) It Is a techniques of making a process or system to operate automatically. **AUTOMATION**
- 5) These are the set of rules and regulations that govern the behaviour of an individual or a group while using the Internet. **ETHICS**

#### Q: B Describe the following.

- 1) Infinite loop: A loop becomes infinite loop if a condition never becomes FALSE. This results in a loop that never ends. Such a loop is called an infinite loop.
- 2) Copyright: The dictionary defines copyright as "a person's exclusive right to reproduce, publish, or sell his/her original work of authorship (as a literary, musical, dramatic, artistic, or architectural work)
  - Copyright is a form of intellectual property protection provided by the laws of the United States.
  - The primary objective of copyright law is to protect the time, effort and creativity of the creator's Work
- 3) Privacy: It is a state in which one is not observed or disturbed by other people. It is an important aspect of life. It is illegal to go against the privacy of any other person without their consent and if anybody is permitted to view someone's information, he/she should not disclose it to other people.
- 4) AI: According to John McCarthy, AI is: "The science and engineering of making intelligent machines, especially intelligent computer programs".
  - Artificial Intelligence is a way of making a computer, a computer-controlled robot, or a software think intelligently, in the similar manner the intelligent humans think.