



B. K. BIRLA CENTRE FOR EDUCATION, PUNE

(SENIOR SECONDARY CO-ED DAY CUM RESIDENTIAL SCHOOL, AFFILIATED TO CBSE NEW DELHI)

ANNUAL EXAMINATION (2024-25)

ARTIFICIAL INTELLIGENCE



Class : VII

Date :19-3-2025

MARKING SCHEME

Duration : 2 Hours

Max. Marks: 50

General Instructions:

1. Please read the instructions carefully.
2. This Question Paper consists of 46 questions in three sections: Section A, Section B & Section C
3. Section A has Objective type questions (MCQ, Fill in the blanks) whereas Section B contains Short questions & Section C contains long questions.
4. All questions of a particular section must be attempted in the correct order as per instructions.
5. **SECTION A - OBJECTIVE TYPE QUESTIONS (24 MARKS):**
 - i. This section has 02 types of questions. MCQ & Fill in the blanks.
 - ii. Marks allotted are mentioned against each question/part.
 - iii. There is no negative marking.
 - iv. Do as per the instructions given.
6. **SECTION B&C – SUBJECTIVE TYPE QUESTIONS (26 MARKS):**
 - i. This section has 16 questions.
 - ii. A candidate has to do 7 questions from Section B & 4 questions from section C
 - iii. Do as per the instructions given.
 - iv. Marks allotted are mentioned against each question/part.

Section-A

I. Multiple Choice Questions(Answer any 4 of 5)

4 x 1 = 4 Marks

1. Which kind of virus have had the names of Wazzo and W97M?
 - a. Worms
 - b. Spams
 - c. Spyware
 - d. Macro Virus**
2. Which worm hit in 2007, which made the compromised machines send over 1.2 billion emails, spreading the infection?
 - a. Wazzo b. Zango **c. Storm** d. W97M
3. When spammers are able to use a registered mobile number to illegally obtain a new SIM card through the mobile service provider, it is known as.....
 - a. Credit card fraud
 - b. Spamming
 - c. SIM swap scam**
 - d. None of these
4.assaults are tactic used by attackers who want to stop users from using computer resources without permission from the owner or another person in charge of a computer, computer system or computer network.
 - a. Phishing
 - b. Vishing
 - c. Virus
 - d. Denial of Service(DoE)**

5.is a practice of receiving unwanted commercial messages by email,SMS,MMS or any other similar electronic messaging platform.
- a. **Spamming**
 - b. Pharming
 - c. Spyware
 - d. Hacking

II. Multiple Choice Questions (Answer any 4 of 5)

4 x 1 = 4 Marks

6. Which HTML tag is used to create a list item?
- a.
 - b.
 - c. <dl>
 - d. ****
7. Which attribute is used to specify the alternate text for an image in HTML?
- a. **<alt>**
 - b. <title>
 - c. <desc>
 - d. <comment>
8. Which HTML attribute is used to specify the starting number for an ordered list?
- a. Type
 - b. **start**
 - c. value
 - d. none of these
9. Which attribute is used to specify the URL of the image file in the tag?
- a. **Src**
 - b. href
 - c. <alt>
 - d. title
10. Which HTML element is used to define description data?
- a. <dl>
 - b. <dt>
 - c. **<dd>**
 - d. All of these

III. Multiple Choice Questions (Answer any 4 of 5)

4 x 1 = 4 Marks

11. HTML files are saved by default with the extension?
- a. .htm
 - b. .html
 - c. **both a & b**
 - d. None of the following
12. Which of the following tag doesn't require a closing tag?
- a.
 - b.

 - c. <hr>
 - d. **All of these**
13. Which tag is used to create a largest heading in html?
- a. **<h1>**
 - b. <h2>
 - c. <h3>
 - d. <h6>
14. What is meant by an empty tag in HTML?
- a. A tag that doesn't have any content.
 - b. **A tag that is missing a closing tag.**
 - c. A tag that is invalid
 - d. None of these
15. What does HTML stand for?
- a. Hyper Text Markup Link
 - b. Hyper Text Modelling Language
 - c. Hyper Text Media Link
 - d. **Hyper Text Markup Language**

IV. Multiple Choice Questions (Answer any 4 of 5)

4 x 1 = 4 Marks

16. Thehelps you to select areas of the current layer or image based on colour similarity.
- a. Ellipse select tool
 - b. Rectangle tool
 - c. **Fuzzy select tool**
 - d. Free selection tool
17. Thelets you select a drawing free hand with the pointer, while holding down the left mouse button.
- a. Ellipse select tool
 - b. Rectangle tool
 - c. Fuzzy select tool
 - d. **Free selection tool**

18. What is GIMP?
- a. **A free and open source raster graphics editor**
 - b. A commercial editor photo editing software
 - c. A proprietary vector graphics editor
 - d. A cloud based image editing platform.
19. By which out of the following ways can we save a file in GIMP?
- a. Go to File>Save
 - b. Pres Ctrl+S
 - c. Click on the save icon all of these
 - d. All of these**
20. Text tool places text into an.....
- a. Image**
 - b. Sound
 - c. Animation
 - d. graphics

V. Multiple Choice Questions (Answer any 4 of 5)

4 x 1 = 4 Marks

21. Anis a robot that travels underwater without requiring continuous input from an operator.
- a. Unmanned Water Vehicle
 - b. Unmanned Ground Vehicle
 - c. Unmanned Underwater Vehicle
 - d. Autonomous Underwater Vehicle**
22.are a type of mobile robot which are articulated limbs, such as leg mechanism, to provide locomotion.
- a. Legged Robots**
 - b. Hilly Robots
 - c. Tracked Robots
 - d. Bio inspired Robot
23.are a type of robot which use treats or caterpillar tracks instead of wheels.
- a. Legged Robots
 - b. Hilly Robots
 - c. Tracked Robots**
 - d. Bio inspired Robot
24. Anrobot is a system capable of sustained flight with no direct human control and able to perform a specific task.
- a. Ground robot
 - b. Aerial robot**
 - c. Underwater robot
 - d. None of these
25. Anis a vehicle that operates while in contact with the ground and without an onboard human presence.
- a. Unmanned water vehicle
 - b. Unmanned ground vehicle**
 - c. Unmanned underwater vehicle
 - d. Autonomous water vehicle

VI. Fill in the blanks (Answer any 4 of 5)

4 x 1 = 4 Marks

26. **Virtual Reality**. creates an artificial environment to inhabit.
27. **Augmented Reality** simulates artificial objects in the real environment.
28. **Google Earth**.is the world's most detailed globe.
29. **Virtual tour**.is a simulation of an existing location completely with 360 degree movement, usually composed of a sequence of videos or still images.
30. **Google cardboard**.is a discontinued virtual reality platform which was developed by Google, primarily for use with a headset into which a smartphone is inserted.

Section-B

Short Answer Questions from Q.No 31 to Q.No 40.(Answer any 7 out of 10) 7 x 2 = 14 Marks

31. What are bio inspired robots? Explain with a few examples.

Ans- Bio-inspired robots are robotic systems that are designed and developed based on principles, mechanisms, and structures observed in nature. These robots imitate biological organisms to solve engineering problems, improve efficiency, or enhance adaptability in challenging environments.

Examples of Bio-Inspired Robots

RoboFish- Underwater exploration, environmental monitoring, and studying marine life.

RoboBee- Pollination, search and rescue in tight spaces.

32. Define Aerial robots. Explain its type.

Ans- Aerial robots are robotic systems capable of sustained flight, either autonomously or with remote control, used for specific tasks such as surveillance, mapping, delivery, or inspection. They are commonly referred to as drones or Unmanned Aerial Vehicles (UAVs).

Types of Aerial Robots

Fixed-Wing Aerial Robots: These robots have a rigid, non-moving wing structure similar to airplanes.

Rotary-Wing Aerial Robots- These have rotary blades for lift and propulsion, similar to helicopters.

Hybrid Aerial Robots- These combine features of both fixed-wing and rotary-wing designs.

33. List a few image editing tools available in GIMP.

Ans- Selection Tools

- Rectangle Select Tool: Selects rectangular regions.
- Ellipse Select Tool: Selects elliptical regions.
- Free Select Tool (Lasso): Allows freehand selection.
- Fuzzy Select Tool (Magic Wand): Selects areas based on color similarity.
- Select by Color Tool: Selects all areas with a similar color.

Paint Tools

Transform Tools

34. Write short notes on HTML with suitable example.

Ans-- HTML is the standard markup language used for creating web pages and web applications. It structures the content on a web page using elements represented by tags. These tags describe the type of content (e.g., headings, paragraphs, links, images) and its layout.

Example

```

<html> <head>
<title>My First Web Page</title>
</head>
<body> <h1>Welcome to My Web Page</h1>
<p>This is a paragraph about the page.</p>
<a href="https://www.example.com">Visit Example</a>

</body>
</html>

```

35. Define and differentiate between ordered list and unordered list with suitable HTML code.

Ans- An ordered list displays items in a specific order, typically numbered. It's used when the sequence or order of items matters (e.g., steps in a process, ranking).

- HTML Tag:
- List Item Tag:
- List Style: Numbers, letters, or Roman numerals (by default).

An unordered list displays items without any specific order, usually with bullets or icons. It's used when the order of items is not important.

- HTML Tag:
- List Item Tag:
- List Style: Bullets (by default).

```

<ol> <li>First step</li> <li>Second step</li> <li>Third step</li> </ol>
<ul> <li>Apples</li> <li>Bananas</li> <li>Cherries</li> </ul>

```

36. Define container tag and empty tag with examples.

Ans- br>Adds a single line break in the text. Used to separate lines of text or add spacing. Empty tag (self-closing).

<hr>inserts a horizontal line (rule) across the page. Used to divide content sections visually. Empty tag (self-closing).

Container Tag-A tag that has both an opening and closing tag. <p> ... </p>, <div> ... </div>

Empty Tag-A tag that does not have a closing tag. ,
, <hr>

37. How is a Hacker different from Cracker?

Ans- A **hacker** is someone who is highly skilled in programming, computers, and networks. Hackers use their skills to explore systems, identify vulnerabilities, and sometimes push the boundaries of technology in creative or innovative ways.

A **cracker** is someone who uses their technical skills with malicious intent, typically for illegal purposes. Crackers intentionally break into systems, bypass security measures, or engage in activities that are meant to cause harm or gain unauthorized access.

38. What do you mean by online job fraud? Give example two examples of online Job fraud.

Ans- Online job fraud refers to deceptive schemes where scammers pose as legitimate employers or recruiters to trick job seekers into providing personal information, paying upfront fees, or performing unpaid work. These scams often target individuals looking for remote or freelance jobs and can result in financial loss, identity theft, or other forms of exploitation.

Spamming,identity theft,DoS

39. Explain the term Augmented Reality with example.

Ans- **Augmented Reality (AR)** is a technology that overlays digital content (such as images, sounds, or other sensory inputs) onto the real world. AR enhances the user's perception of their environment by integrating virtual elements with the physical world in real-time, typically through devices such as smartphones, tablets, or AR glasses.

Key Features of Augmented Reality:

Real-Time Interaction

Integration with the Environment

40. Give two examples of use of Virtual Reality in today's time.

Ans- Healthcare & Medical Training – VR is used in medical training to simulate surgeries and other medical procedures, allowing doctors and students to practice in a risk-free environment before performing real-life operations.

Gaming & Entertainment – VR is widely used in gaming to create immersive experiences, allowing players to feel as if they are inside the game world. It is also used in virtual concerts, interactive storytelling, and theme park attractions.

Section-C

Long Answer Questions from Q.No 41 to Q.No 46.(Answer any 4 out of 7) 4 x 3 = 12 Marks

41. Write HTML code to insert background colour and background image.

Ans-`<body bgcolor="colour name">`

`<body background="url of image">`

42. Expand the following short forms.

a. AUV b. UUV c. ASW

AUV – Autonomous Underwater Vehicle

UUV – Unmanned Underwater Vehicle

ASW – Anti-Submarine Warfare

43. Define Virtual Reality (VR).How is it different from AR(Augmented Reality)

Ans- Virtual Reality (VR) is a technology that creates a fully immersive, computer-generated environment where users can interact using special devices like VR headsets, gloves, or controllers. It completely replaces the real-world surroundings with a digital experience.

VR creates a completely virtual environment, while AR enhances the real world by adding digital elements

44. Define the following- Viruses, Worms and Trojan Horses.

Ans- Virus:

Requires a host file or program to spread.

Relies on user action to activate and propagate.

Worm:

Does not need a host file or user action to spread.

Focuses on exploiting network vulnerabilities.

Trojan Horse:

Deceptively appears as legitimate software.

Delivers other malicious software or allows unauthorized access.

45. Neha's parents want to create a web page as an invitation for his Graduation Party and send this to all his friends. Help them in designing this invitation using the details given below.

a. Pic.jpg as an image in the centre of the page.

Ans-``

b. "Lets Rock" as the heading below the image in red color.

Ans-`Lets Rock`

c. With 2 lines break place the text of size 12 and color Blue.

Ans- `

`

` Text`

46. Write down the expansion of the following.

a. gif b. .png c. .jpeg d. .psd e. bmp f. tif

Ans- gif – Graphics Interchange Format

b. png– Portable Network Graphics

c. jpeg – Joint Photographic Experts Group

d. psd – Photoshop Document

e. bmp – Bitmap Image File

f. tif – Tagged Image Format
