

HALF YEARLY EXAMINATION, 2024-25

COMPUTER STUDIES (ARTIFICIAL INTELLIGENCE & CODING)

Time – 2:00 Hr.

Class –VII

M.M. : 30

Date – 04.09.2024 (Wednesday)

Name of the student _____ Section _____

Instructions: All questions of a particular section must be attempted in the correct order.

Q1. Choose the correct option:

5*1=5

- (a) In Binary addition, $1+1$ equals to _____:
A) 0 B) 2 C) 10 D) 1
- (b) Splitting an image into layers is called:
A) Merging B) Layering C) Filtering D) Stacking
- (c) _____ is a type of chart in Excel.
A) Radar B) Sunburst C) Histogram D) All of these
- (d) To convert decimal number into Binary number, divide the number by _____.
A) 8 B) 10 C) 16 D) 2
- (e) Which of the following tool is used to change the size of an image in Synfig?
A) Cut out tool B) Transform tool C) Scale tool D) Spline tool

Q2. Fill in the blanks:

5*1=5

- (a) The numeric value of _____ is 13 in Hexadecimal number system.
- (b) A _____ is a frame in which we define a change to an object's properties in Synfig.
- (c) Cortana is a personal digital virtual assistance developed by _____.
- (d) The _____ is used to set the transparency of the layers.
- (e) _____ specifies the color, symbol, or pattern used to mark data series in chart.

Q3. Application based questions.

5*1=5

- (a) Aman is looking for a digital virtual assistant developed by Apple. Could you recommend him an application that provides virtual assistance?
- (b) Samantha runs a small lemonade stand every summer. She tracks the number of cups of lemonade she sells each week and also records the average temperature for each week. Which type of chart should she use to effectively display both sets of data together in MS Excel?
- (c) You are working on a GIMP project where you have three layers: a background layer, a photo layer, and a text layer. You want to focus on editing just the photo layer and temporarily hide the other layers so that you can see the photo layer more clearly. By which option you can do this on GIMP?
- (d) Hitesh wants to use set of tools which helps to create or modify graphics and text. Write the name of the set of tools available in synfig.
- (e) Piyush is creating a digital poster for his school project, he wants to change the appearance, layer or selection and apply special visual effect to the poster. Which feature of the GIMP he should use?

Q4. Short answer type questions. (attempt any 5 questions)

5*2=10

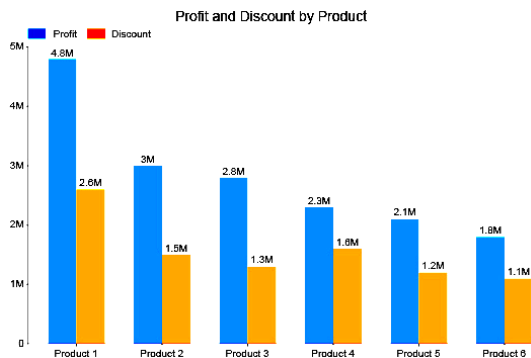
- (a) Write the steps to rename a layer in GIMP.

- (b) State the difference between Spline tool and Fill tool.
- (c) Convert the Decimal number into Binary number :
 $(236)_{10} = (?)_2$
- (d) What is the purpose of Time Loop in Synfig?
- (e) Mention any three elements of IoT.
- (f) What do you understand by the least and most significant digits? Explain with an example.
- (g) What do you understand by NLP? Name some of the technologies using NLP.

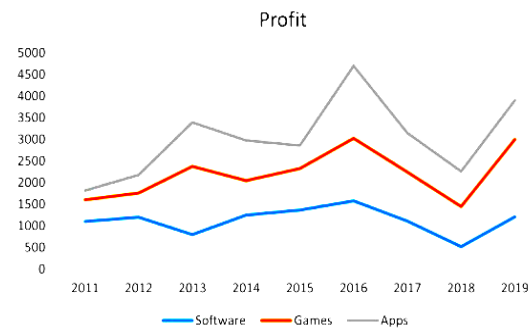
Q5. Diagram based questions.

5*1=5

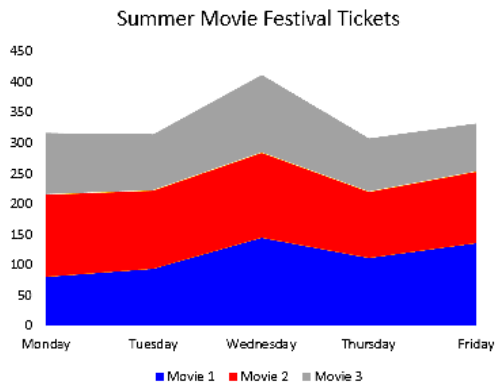
Identify the type of chart represented in the diagram and write it down.



(i)

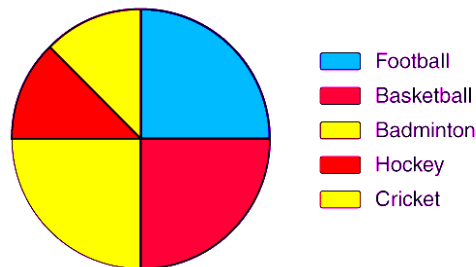


(ii)

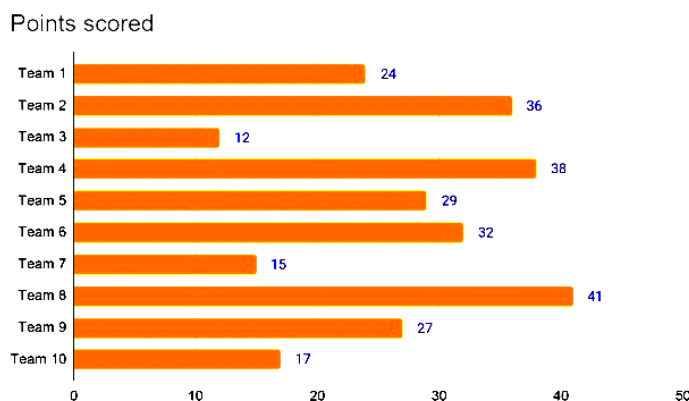


(iii)

Favourite Sports Percentage



(iv)



(v)

Practical Assignment : 20 Marks

