## KENDRIYA VIDYALAYA SANGATHAN JAIPUR REGION PRE BOARD EXAMINATION 2020-21

| Class | : XII | Time | : $\mathbf{H r s}$ |
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| Subject | $:(065)$ INFORMATICS PRAC. | Maximum Marks: 70 |  |

General Instructions:

1. This question paper contains two parts A and B . Each part is compulsory.
2. Both Part A and Part B have choices.
3. Part-A has 2 sections:
a. Section - I is short answer questions, to be answered in one word or one line.
b. Section - II has two case studies questions. Each case study has 5 case-based subparts. An examinee is to attempt any 4 out of the 5 subparts.
4. Part - B is Descriptive Paper.
5. Part- B has three sections
a. Section-I : is short answer questions of 2 marks each in which two questions have internal options.
b. Section-II : is long answer questions of 3 marks each in which two questions have internal options.
c. Section-III : is very long answer questions of 5 marks each in which one question has internal option.

## PART - A

## Section I : Attempt any 15 questions from questions 1 to 21

| Q1. | State whether True or False: <br> (i) A worm is a self-replicating program. <br> (ii) Firewall can be implemented in software as well as in hardware. | 1 |
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| Q2. | Fill in the blanks: <br> Which command is used to show a chart: <br> (i) chartshow() <br> (ii) show() <br> (iii) display() <br> (iv) showchart() | 1 |
| Q3. | Write the output of the following SQL command: select round $(458.45,-1)$ <br> (i) 450 <br> (ii) 400 <br> (iii) 460 <br> (iv) 500 | 1 |
| Q4. | Given a Pandas series called Sequences, the command which will display the last 7 rows is $\qquad$ <br> (i) print(Sequences.tail(7)) <br> (ii) print(Sequences.Tail(7)) <br> (iii) print(Sequences.last(7)) <br> (iv) print(Sequences.Last(7)) | 1 |



| Q15. | Which amongst the following is not an example of Antivirus ? <br> i) Avast <br> ii) Quick Heal <br> iii) Edge <br> iv) McAfee | 1 |  |
| :---: | :--- | :--- | :---: |
| Q16. | A mail or message sent to a large number of people indiscriminately without their <br> consent is called__. | 1 |  |
| Q17. | According to a survey, one of the major asian country generates approximately about <br> 2 million tonnes of electronic waste per year. Only 1.5 \% of the total e-waste gets <br> recycled. Suggest a method to manage e-waste. | 1 |  |
| Q18. | The ___ command is used to sort a column's data in SQL in ascending order. | 1 |  |
| Q19. | Write the SQL command that removes leading and trailing spaces from a given string. | 1 |  |
| Q20. | The ___ topology has a central controller. <br> Q21. | What is the name of the IT law that India is having in the Indian legislature? <br> i) India's Technology (IT) Act, 2000 <br> ii) India's Digital Information Technology (DIT) Act, 2000 <br> iii) India's Information Technology (IT) Act, 2000 <br> iv) The Technology Act, 2008 | 1 |

Section II : Both the case study based questions ( $22 \& 23$ ) are compulsory. Attempt any four sub parts from each question. Each sub question carries 1 mark.

| Q22. |  | Consider the following dataframe df as shown below: |  |
| :---: | :---: | :---: | :---: |
|  | (i) | Write the code to create above dataframe in Python (Pandas code). | 1 |
|  | (ii) | What will be the output produced by following statements? >>> print(df.at['T3','total'], df.at['T1','ip']) <br> (i) $235 \quad 94$ <br> (ii) $241 \quad 98$ <br> (iii) $241 \quad 94$ <br> (iv) $235 \quad 98$ | 1 |



| (i) | State the command that will give the output as : <br> a) select name, model from item where model='Mi'; <br> b) select name, model from item where model like ' $\mathrm{Mi}^{\prime}$; <br> c) select name, model from item where ino in (10, 13); <br> d) select name, model from item where Qty=4 or Qty=5 <br> Choose the correct option: <br> (i) Both (a) and (c) <br> (ii) Any of the option (a), (b), and (c) <br> (iii) Both (c) and (d) <br> (iv) Both (a) and (b) | 1 |
| :---: | :---: | :---: |
| (ii) | What will be the output of the following command: select * from item where qty=5 order by model desc; | 1 |




|  | Write commands to : <br> i. Add a new column 'Activity' to the Dataframe <br> ii. Add a new row with values ( 5 , Shailly, XII, D , 9.8, Arts) |  |
| :---: | :---: | :---: |
| Q31. | Expand the following terms related to Computer Networks: <br> a. SMTP <br> b. POP <br> c. FTP <br> d. VoIP | 2 |
| Q32. | List any two health hazards related to excessive use of Technology. | 2 |
| Q33. | Layna is using her internet connection to book a flight ticket. This is a classic example of leaving a trail of web activities carried by her. What do we call this type of activity? What is the risk involved by such kind of activity? | 2 |
| PART - B : Section II |  |  |
| Q34. | Consider two objects x and $\mathrm{y} . \mathrm{x}$ is a list whereas y is a Series. Both have values 2, 4, 9, 10. <br> What will be the output of the following two statements considering that the above objects have been created already <br> a. print ( $\mathrm{x}^{*} 2$ ) <br> b. print $\left(y^{*} 2\right)$ <br> Justify your answer. | 3 |
| Q35. | What do you mean by Plagiarism? Explain with the help of an example. <br> OR <br> What do you understand by Net Ettiquetes? Explain any two such ettiquetes. | 3 |
| Q36. | Consider the following graph. Write the code to plot it. | 3 |




|  | Number of computers : <br> Market Dept : 20 <br> Legal Dept : 10 <br> Fun Dept : 50 <br> Sales Dept : 100 <br> i) Suggest a most suitable cable layout for the above connections. <br> ii) Suggest the network type between the departments. <br> ii) Suggest the most suitable building to place the server with suitable reason. <br> iii)Suggest the placement of the following devices : <br> a) Repeater <br> b) Hub/Switch <br> iv) The organization is planning to link its Head Office situated in 'New Delhi'. Which type of network out of LAN, MAN, WAN will be formed? Justify your answer. |
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