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**PRESIDENCY UNIVERSITY
BENGALURU**

SCHOOL OF ENGINEERING

TEST - 1

Even Semester: 2018-19

Course Code: CSE 308

Course Name: Artificial Intelligence

Programme & Sem: B.Tech (DE) & VI Sem

Date: 06 March 2019

Time: 1 Hour

Max Marks: 40

Weightage: 20%

Instructions:

(i) **Answer all the questions, and answer to the point.**

Part A

Answer **both** the Questions. **Each** question carries **six** marks. (2Qx6M=12)

1. Check the validity of the argument using indirect proof
"If Prof.Shreekant takes class then Dr.NMS takes lab. If Dr.NMS takes lab then Dr.ABC takes leave. Either Prof.Shreekant does not take class or Dr.ABC does not take leave. Prof.Shreekant takes class or Dr.ABC takes leave. Therefore, Dr.ABC takes leave."
2. Explain the various views of artificial intelligence.

Part B

Answer **both** the Questions. **Each** question carries **eight** marks. (2Qx8M=16)

3. With a suitable diagram describe the architecture of Knowledge base systems.
4. Obtain the CNF of $\neg(P \vee Q) \leftrightarrow (P \wedge Q)$.

Part C

Answer the Question. Question carries **twelve** marks. (1Qx12=12)

5. Check the validity of the argument given below
"Suresh Raina does not play cricket or Saurav Ganguly plays football. Saurav Ganguly does not play football or Rahul Dravid plays chess. If Rahul Dravid plays chess then Sachin plays hockey. Therefore, if Suresh Raina plays cricket then Sachin plays hockey"



Roll No.

**PRESIDENCY UNIVERSITY
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SCHOOL OF ENGINEERING

TEST - 2

Even Semester: 2018-19

Course Code: CSE 308

Course Name: Artificial Intelligence

Program & Sem: B.Tech & VI Sem (DE)

Date: 16 April 2019

Time: 1 Hour

Max Marks: 40

Weightage: 20%

Instructions:

(i) **Answer All the Questions.**

Part A

Answer the Question. The Question carries **five** marks.

(1Qx5M=5)

1. For the below paragraph, draw the associative network.

Company XYZ is a software development company. 3 departments within the company are sales, admin, and Programming. Smith is the manager of programming. David and Jane are programmers. Jane is married to Sachin. Sachin is an editor of Printice Hall. They have 3 children and they live in Elm street. Jane wears glasses and is 6 feet tall.

Part B

Answer **both** Questions. **Each** Question carries **ten** marks.

(2Qx10M=20)

2. For the below argument, obtain clause forms and contradiction to prove that the statement "Nobody is exciting" is false using Resolution Refutation technique.

All people who are healthy and are not stupid are happy. Those people who read are not stupid. Lara can read and is wealthy. Happy people have exciting lives.

3. Extract the answer for the below argument using Resolution Refutation technique.

Anyone passing his Mathematics exams and winning the lottery is not sad. But anyone who studies or is lucky can pass all his exams. Gayle did not study but he is lucky. Anyone who is lucky does not lose the lottery. Is Gayle happy?

Part C

Answer the Question. The Question carries **fifteen** marks.

(1Qx15M=15)

4. Draw the decision tree for given data-set. Write the formulae and show the calculations for Entropy and Gain in each level of the decision tree. Write the hypothesis for prediction.

Instance	A1	A2	Classification
1	FALSE	FALSE	-
2	FALSE	FALSE	-
3	FALSE	TRUE	+
4	TRUE	TRUE	-
5	TRUE	FALSE	+
6	TRUE	FALSE	+