Programme: **Bachelor of Vocation (Artificial
Intelligence and Data Science) Semester-I**

Course Title: **Introduction to Computer and Information
Technology**

Course Code: **BVIL-1113**

Time Allowed: **3 Hours**   Max Marks: **35**

Note: **Attempt five questions in all, selecting atleast one
question from each section. Fifth question may be attempted
from any section. Each question carries 7 marks.**

Section-A

1. Define computer. Explain it various components along
   with a neat diagram.   (7)
2. Write all the hardware and software milestones of
   computer system in detail.   (7)

Section-B

3. Discuss various applications of Information Technology
   in the field of:
   a. Science
   b. Medicine   (7)

4. Define software. Discuss its types with suitable examples. (7)

Section-C

5. Differentiate between the working of:
   a. OMR and OCR devices (7)
   b. Magnetic tapes and Magnetic disks (7)
6. Discuss Serial line page printer in detail. (7)

Section-D

7. Explain the characteristics and architecture of Big Data. (7)
8. Discuss the various service and deployment models of cloud computing. (7)

Bachelor of Vocation (Artificial Intelligence and Data Science)
Semester I

Course Title: Introduction to Artificial Intelligence and Data Science

Course Code: BVIL-1114

Max. Marks: 70

Time: 3 Hours

Note: Attempt five questions, selecting one question from each section. The fifth question can be attempted from any section. Each question carries 14 marks.

Section – A

1. Explain AI. How does AI works? What are the benefits and risk of AI?
2. Explain opportunities and applications of AI. What are its applications in Data Science.?

Section – B

3. Explain Data Science Process in detail.
4. What are the application areas in Data Science? Also explain challenges in Data Science?

Section – C

5. Explain Data Science Methodologies in detail.
6. Explain various steps involved in Data Analysis.

Section – D

7. Explain in detail Mean Deviation and Standard Deviation.
8. Explain Mean, Median and Mode with examples.

Exam Code: 112901   Paper Code: 1311

Programme: Bachelor of Vocation (Artificial Intelligence and Data Science) Semester: I

Course Title: Office Fundamentals

Course Code: BVIL-1115

Time Allowed: 3 Hours   Max Marks: 35

Note: Attempt five questions in all, selecting atleast one question from each section. Fifth question may be attempted from any section. Each question carries 7 marks.

Section A

1. Explain the MS-WORD interface in detail.   (7)
2. Write the steps for the following: (2+2+3)
   a. Saving a document
   b. Opening already existing file
   c. Protecting a file.

Section B

3. What is a table? How can you insert and style it?   (7)
4. What is word art and drop cap? Explain various illustrations available in MS-WORD.   (7)

Section C

5. Discuss various presentation views and slide show options available in MS-POWERPOINT.   (7)
6. How do you apply and edit slide transitions.   (7)

Section D

7. How to insert and edit various types of charts in MS-EXCEL.(7)
8. What do you understand by pivot table and What-if analysis?
                                                        (7)

**Bachelor of Vocation (Artificial Intelligence and Data Science)
Semester I**

Course Title: Computational Problem Solving - I

Course Code: BVIM-1116

Time: 3 Hours

Max. Marks: 35

Note: Attempt five questions, selecting one question from each section. The fifth question can be attempted from any section. Each question carries 7 marks.

Section – A

1. Explain differences between compiler, interpreter and assembler.
2. Explain various generations of computers in detail.

Section – B

3. Explain literals, identifiers and variables with programming examples.
4. Explain list and strings in detail. What are various operations and functions that can be applied on them?

Section – C

5. Explain if, if else, if elif else statement in Python with programming examples.
6. Write a program in Python to print prime numbers upto n.

Section – D

7. Explain lamda and recursive functions. Write a program in Python demonstrating the concept of recursion.
8. Explain Object Oriented Programming in Python. Write a Program in Python to demonstrate the concept of classes, overloading and inheritance.