Model Questions for End-semester Exams

**Answer in around 400 - 450 words (10 marks each)**

1. Explain 6 types of सूत्रs found in the अष्टाध्यायी with examples.
2. Explain the different levels on which व्याकरण operates.
3. Based on the following two paradigms, arrive upto (i) a verbal root, (ii) just one set of 9 suffixes and (iii) rules that can generate all the following forms -

|  |  |  |
| --- | --- | --- |
| Present Tense | | |
| पठति | पठतः | पठन्ति |
| पठसि | पठथः | पठथ |
| पठामि | पठावः | पठावः |
| Future Tense | | |
| पठिता | पठितारौ | पठितारः |
| पठितासि | पठितास्थः | पठितास्थ |
| पठितास्मि | पठितास्वः | पठितास्मः |

1. Explain in detail the contents of the अष्टाध्यायी.
2. Explain the various types of suffixes and interplay of suffixes leading to word-generation in the अष्टाध्यायी.a

**Ansewer the following in around 200 words (5 marks each)**

1. Explain with an example the अनुवृत्ति technique employed in the अष्टाध्यायी
2. Explain the difference between meta-language and meta-rules
3. Explain the difference between अनुवृत्ति and अनुबन्ध
4. Explain how Data separation and Data encapsulation is observed in the अष्टाध्यायी
5. Write about the various digital tools developed on the basis of the अष्टाध्यायी
6. Explain how conflict arises in the operation of the अष्टाध्यायी .
7. Explain the various methods of conflict resolution found in the अष्टाध्याय
8. Explain how different cases used in the सूत्रs of the अष्टाध्यायी should be interpreted.

**Answer the following questions in one sentence (1 mark each)**

1. State the root, suffix and transformation in the derivation of the word कारु (Root is कृ, suffix is उ and transformation is वृद्धि)
2. Which of the 6 types of सूत्रs does the सूत्र - ‘लोटो लङ्-**वत्**’ belong to? (Take clue from the use of वत् in the सूत्र लोटो लङ्-**वत्)** (अतिदेश सूत्र)
3. Which of the 6 types of सूत्रs does the सूत्र - इको यणचि belong to? (विधिसूत्र)
4. Give one example ofपरिभाषा सूत्र. (विप्रतिषेधे परं कार्यम्)
5. Give one example of an operation where a sound is replaced. (इति+अपि becomes इत्य्+अपि by virtue of the rule - इको यणचि)
6. Which sounds are included in the प्रत्याहार - शल् (श्, ष्, स्, ह्)
7. Which are the two ambiguous प्रत्याहारs in the अष्टाध्यायी (अण् and इण्
8. What is सूत्र? Give one example. (सूत्र is a brief but precise sentence. In व्याकरण it describes some aspect of a language in form of a rule. Example - इको यणचि)
9. Which information is embedded in the suffix ति in the word पठति? (present tense, 1st person, singular)
10. What is the suffix that converts a nominal base into another nominal base? (तद्धित)

**Explain the following terms (3 marks each)**

1. प्रकृति
2. प्रत्यय
3. परिभाषा
4. संहिता
5. सम्प्रसारण
6. प्रत्याहार
7. कारक
8. लक्षण
9. गुण
10. वृद्धि
11. आदेश
12. आगम
13. धातु
14. प्रातिपदिक
15. विवक्षा

**Some Materia Sent by Shree Sujeet**

**2/11/22**

* Subroutine
  + Compared with function/method with artificial language such as C/C++/Python
* Data Encapsulation

**3/11/22**

* Natural Language vs Artificial Language
* Application of NLP
  + Spell and Grammar Checking
  + Word Prediction
    - <https://huggingface.co/spaces/7Vivek/Next-Word-Prediction-Streamlit>
  + Information Retrieval
  + Sentiment Prediction (Positive/Negative/Neutral)
    - <https://huggingface.co/spaces/rajesh1729/Text-analysis-with-spacy-and-streamlit>
  + Text Categorization
    - <https://huggingface.co/spaces/widged/text-classification>
  + Document Summarization
  + Question Answering
  + Machine Translation
  + Optical Character Recognition (OCR)
  + Speech Processing
  + Speech Synthesis
  + Spoken Dialogue system

**4/11/22**

* Paradigm Discussion
* We have taken various forms of verbal root and came up with
  + root word + set of 9 (3\*3) suffixes + some transformation rule
  + The verbal root we discussed in class are **कर्तरि लट्लकारः/कर्तरि लृट्लकारः/कर्तरि लोट्लकारः** of भू धातु
* Nominal root
  + राम and रमा
  + Root word + set of 27 (3\*7) suffixes + some transformation rule

<https://slideplayer.com/slide/13671805/>

<https://huggingface.co/spaces/7Vivek/Next-Word-Prediction-Streamlit>

<https://huggingface.co/spaces/rajesh1729/Text-analysis-with-spacy-and-streamlit>

<https://bhavana.org.in/computing-processes-and-pan%CC%A3inis-as%CC%A3t%CC%A3adhyayi/>