

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT

TEST -3 EXAMINATIONS- 2026

B.Tech-VIII semester (CSE/IT/BT/ECE/CE)

COURSE CODE (CREDITS): 23B1WHS831

MAX MARKS: 35

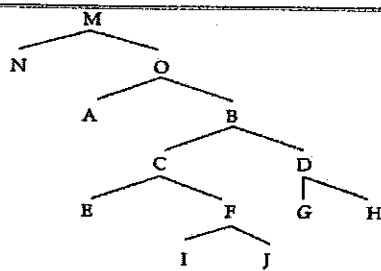
COURSE NAME: Introduction to Science of Language

COURSE INSTRUCTOR: AKS, DLR

MAX. TIME: 2 Hours

*Note: (a) All questions are compulsory.**(c) Use of calculator is not allowed*

Q.No	Question	CO	Marks
Q1	Write the three term labels for the following sounds /p/, /k/, /n/, /f/	2	1.5*4
Q2	Consider the sounds [s] and [z] in the dataset from Japanese pasted below. Determine whether these sounds are 2 different phonemes or allophones of the same phoneme. If they are different phonemes, state the minimal pairs that prove this; if they are allophones of the same phoneme, state the phonological environment in which these sounds occur. 1. [seri] (finger) 2. [idos] (pot) 3. [mosta] (sky) 4. [lize] (top) 5. [tuga] (pain) 6. [tiva] (dog) 7. [sozi] (light) 8. [mizas] (loud)	2	1+2
Q3	Examine the following data from Hindi and determine the phonemic status of [t], [tʰ], and [d] (i.e. if they are allophones, or belong to one, two, or three phonemes). State your evidence. [tantrik] "tantra" [dan] "donate" [tal] "beat" [patʰak] "one who studies" [dal] "lentil" [tʰan] "a bolt of cloth" [batʰ] "words" [tʰal] "plate" [bad] "later" [pʰatak] "a gate"	2	1+2
Q4	A syllable is a unit of pronunciation or speech. Write down number of syllables in the following words. Municipal Cure True Semester Travancore	3	5

Q5	A morpheme is a unit of meaning in a word. Write down the number of morphemes in the following words. (take 'ation' as a single morpheme) Hippopotamus Civilizational Synthesize Decolourization Graphic Institutionalisation	5	6														
Q6	Explain with examples any four processes of word formation.	5	4														
Q7	One of the characteristics of Italian is that articles and adjectives have inflectional endings that mark agreement in gender (and number) with the noun they modify. Based on this information, answer the questions that follow the list of Italian phrases. <table border="0"> <tr> <td>un uomo</td> <td>"a man"</td> </tr> <tr> <td>un uomo robusto</td> <td>"a robust man"</td> </tr> <tr> <td>un uomo robustissimo</td> <td>"a very robust man"</td> </tr> <tr> <td>una donna robusta</td> <td>"a robust woman"</td> </tr> <tr> <td>un vino rosso</td> <td>"a red wine"</td> </tr> <tr> <td>una faccia</td> <td>"a face"</td> </tr> <tr> <td>un vento secco</td> <td>"a dry wind"</td> </tr> </table> a. What is the root morpheme meaning "robust"? b. What is the morpheme meaning "very"? c. What is the Italian for: (1) "a robust wine" (2) "a very red face" (3) "a very dry wine"	un uomo	"a man"	un uomo robusto	"a robust man"	un uomo robustissimo	"a very robust man"	una donna robusta	"a robust woman"	un vino rosso	"a red wine"	una faccia	"a face"	un vento secco	"a dry wind"	3	1+1+3
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Q8	 <pre> graph TD M --- N M --- O O --- A O --- B B --- C B --- D C --- E C --- F F --- I F --- J D --- G D --- H </pre> a) Which node precedes D, G, H, F, I and J and no other nodes in the tree? b) List all the nodes C-commanded by E in the tree. c) List all the nodes dominated by N in the tree.	2	1*3														