

Comp  
QP code - 93609

University of Mumbai  
Examinations summer 2022  
Examination: BE Semester-VIII (Rev2016)

Course Code: DLO8012  
Time: 2 hours 30 minutes

Course Name: Natural Language Processing  
Max. Marks: 80

Q1.	Choose the correct option for the following questions. All the questions are compulsory and carry equal marks
1.	What does morphological disambiguation mean?
Option A:	It is a process to check semantics in the given context
Option B:	It is a process of choosing the proper morphological interpretation of a token in a given context.
Option C:	Process of defining only rules.
Option D:	Process of selecting the algorithm
2.	_____ is a process of assigning a corresponding part of speech like a noun, verb, adverb and adjective to each word in a sentence.
Option A:	Stemming
Option B:	Lemmatization
Option C:	Part-of-speech tagging
Option D:	Parsing
3.	The process of deciding what pronouns and other noun phrases refer to is known as
Option A:	Inferable
Option B:	Coreference Resolution
Option C:	Reflexive
Option D:	Verb Semantics
4.	Lesk algorithm
Option A:	converts words to vectors
Option B:	finds comparison between two words
Option C:	measures overlap between sense definitions for all words in context
Option D:	check for similarity between words in context
5.	Which of the following is an example of "hyponym-hypernym" semantic relationship?
Option A:	Car-Vehicle
Option B:	Car-Wheel
Option C:	Wheel-Car
Option D:	Car-Ford
6.	The stemming algorithm is used to
Option A:	Form complex words from base form
Option B:	Generates the parse tree of a sentence
Option C:	Check meaning of a word in dictionary
Option D:	Reduce inflected form of a word to a single base form

QP code - 93609

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7.	In which of the summarization technique, the summary contains the sentences from the given document only?
Option A:	Extractive Summarization
Option B:	Abstractive summarization
Option C:	Mixed Summarization
Option D:	Copied summarization
8.	The ambiguity in the sentence - Rima went to Gauri. She said, "I am tired."
Option A:	Syntactic Ambiguity
Option B:	Semantic Ambiguity
Option C:	Lexical Ambiguity
Option D:	Referential Ambiguity
9.	Pragmatic refers to
Option A:	Literal meaning
Option B:	Intended meaning
Option C:	Structural meaning
Option D:	Wordnet dictionary meaning
10.	Natural Language Generation does not involve the following task
Option A:	Producing meaningful phrases and sentences
Option B:	Mapping the given input in natural language into useful representations.
Option C:	Retrieving the relevant content from the knowledge base.
Option D:	Mapping sentence plan into sentence structure

<b>Q 2</b>	<b>Solve any Two Questions out of Three (20 Mark)</b>
A	What is information retrieval and machine translation in applications? Give a brief answer on both.
B	What is Word Sense Disambiguation? Illustrate with an example how the Dictionary-based approach identifies the correct sense of an ambiguous word.
C	Explain derivational and inflectional morphology in detail with suitable example

<b>Q 3</b>	<b>Solve any Two Questions out of Three (20 Mark)</b>
A	Why it is important to preprocess text data in natural language? Explain in detail the steps of preprocessing with examples.
B	What are the five types of referring expressions? Explain with example
C	Write Note on Text Summarization

<b>Q 4</b>	<b>Solve any Two Questions out of Three (20 Mark)</b>
A	What is a language model? Explain the N-gram model
B	How HMM is used for POS tagging? Explain in detail.
C	What is lexicon, lexeme and Explain the different types of relations that hold between lexemes with example

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BE sem - VIII PM

Q.P. 93987

University of Mumbai  
Examinations Summer 2022

Time: 2 hour 30 minutes

Max. Marks: 80

Q1.	Choose the correct option for following questions. All the Questions are compulsory and carry equal marks
1.	Which is an example of Triple Constraint?
Option A:	Scope, Human Resource, Time
Option B:	Quality, Scope, Human Resource
Option C:	Cost, Human Resource, Time
Option D:	Scope, Cost, Time
2.	You are responsible for a project with high risks particularly during the early phases - your sponsor has asked for performance reports on a monthly basis. At the end of the first month you report a CPI greater than 1 and also the SPI greater than 1. What would this mean?
Option A:	The project is behind schedule and over budget
Option B:	The project is ahead of schedule and under budget
Option C:	The project is ahead of schedule but over budget
Option D:	The project is behind schedule but under budget
3.	Why does activities on critical path of a CPM network are called critical
Option A:	They represent maximum project completion time
Option B:	They cannot tolerate any delay in completion
Option C:	They consume maximum resources
Option D:	These are most complex activities on project
4.	A risk is known as Positive risk or opportunity if-
Option A:	Impact is negative which you want to lessen its impact
Option B:	Impact is positive which you want to lessen its impact
Option C:	Impact is negative which you may want to actualize
Option D:	Impact is positive which you may want to actualize
5.	The lowest element in the hierarchical breakdown of the WBS is
Option A:	Deliverable
Option B:	Work package
Option C:	Responsibility matrix
Option D:	Bottoms up budget
6.	When many activities are planned to start at the same time in project schedule, the project is likely to be following
Option A:	Concurrent Engineering
Option B:	Research and Development Project
Option C:	Goldratt's Critical Chain
Option D:	laddering approach
7.	The payback period for a project
Option A:	is the internal rate of return that is the discount rate that equates the present values of the two sets of flows.
Option B:	is the discounted cash flow method determines the net present value of all cash flows by discounting them by the required rate of return
Option C:	is the initial fixed investment in the project divided by the estimated annual net cash

	inflows from the project.
Option D:	is also known as the benefit-cost ratio
8.	A project is over budget when
Option A:	CPI > 1
Option B:	SPI > 1
Option C:	CPI and SPI > 1
Option D:	CPI less than 1
9.	Select the correct statement from the following
Option A:	There is always only one critical path in the network
Option B:	A path is called a critical path if it is the longest path in a project network
Option C:	Slack or float of dummy activity is always equal to zero
Option D:	Crashing cost linearly increases with no of days crashed
10.	Project closure when the project is completed as planned is
Option A:	Failed projects
Option B:	Premature closure
Option C:	Abnormal closure
Option D:	Normal closure

<b>Q2</b>	<b>Solve any Two Questions out of Three</b>	<b>10 marks each</b>
A	Explain stages of team development and growth? What are advantages of and barriers to team effectiveness?	
B	Explain Probability and impact matrix. What are the risk response strategies for negative risks (threats) and positive risks (opportunities)?	
C	List and briefly describe the ways projects may be terminated. What are some non-technical reasons for project termination?	
<b>Q3</b>	<b>Solve any Two Questions out of Three</b>	<b>10 marks each</b>
A	Differentiate between the Functional, Pure Project and Matrix organizations.	
B	What is crashing of the project? Explain with a small example the process of crashing	
C	Draw resource loading diagram for the following project. Adjusting the activity floats, and level the resources to the best possible loading. How many men are required to complete this project in 11 days after carrying out resource levelling?	
	<p style="text-align: center;"> <math>r_{ij}</math> = resource (men)  <math>t_{ij}</math> = time (days)         </p>	
<b>Q4</b>	<b>Solve any Two Questions out of Three</b>	<b>10 marks each</b>
A	A project in its 26th week has an actual cost of Rs.270,000/-. It was scheduled to have spent Rs.260,000/-. For the work performed the budgeted value is Rs. 272,000/-. What are cost and schedule variances for the project? What is the SPI, CPI and CSI? Comment on the status of the project based on your earned value analysis.	
B	Why negotiations are important in Project Management? Why Win-Win strategy is adopted in project management for negotiations	
C	What does project audit tries to find out? How do project audit recommendations help the project? What are types of project audits based on the depth of audit?	

*Comp*  
B.E. Sem - VIII (Comp) EDM

University of Mumbai

Examinations summer 2022

RP: 93983

Time: 2 hour 30 minutes

Max. Marks: 80

Q1.	Choose the correct option for following questions. All the Questions are compulsory and carry equal marks
1.	The 'T' in a PESTLE analysis refers to,
Option A:	Technology
Option B:	Time
Option C:	Training
Option D:	Task
2.	BCG matrix is also referred as,
Option A:	Growth-sell matrix
Option B:	Business-cost matrix
Option C:	Growth-Share Matrix
Option D:	Business-share matrix
3.	The entrepreneur who has neither the will nor the desire to introduce and adopt new methods is called as,
Option A:	imitating entrepreneur
Option B:	adoptive entrepreneur
Option C:	fabian entrepreneur
Option D:	innovative entrepreneur
4.	Combining of two or more businesses to try and achieve synergy to achieve more overall gains is referred as,
Option A:	Merger Deal
Option B:	Team Building
Option C:	Franchise Setup
Option D:	Partnership Deal
5.	To convince a financial entity and an angel investor that the business can produce enough revenue to make a satisfactory profit and therefore attractive as an investment opportunity is called as,
Option A:	Future plan
Option B:	Profit-loss statement
Option C:	Balance statement
Option D:	Business plan
6.	The three pillars of sustainable development for the entrepreneurial ecosystem are
Option A:	Environment , Economy, Society
Option B:	Ecology, Economy, Society
Option C:	Environment , Ecology, Equity
Option D:	Equity, Environment , Society

7.	Which of the following is the responsibility of the government when it is in promotional role for encouraging entrepreneurship
Option A:	Build up and strengthen the necessary development infrastructures such as power, transport, finance, marketing, institutions for training and guidance.
Option B:	It should see to it that the national resources are directed to the right purpose.
Option C:	Set up State Owned Enterprises (SOEs)
Option D:	Encourage or Discourage certain activities through monetary and fiscal incentives and disincentives
8.	As per MSME, the investment in plant and machinery under manufacturing sector does not exceed ---- and in equipment under service sector does not exceed ----.
Option A:	5 Lakhs - 10 Lakhs
Option B:	10 Lakhs - 15 Lakhs
Option C:	25 Lakhs - 10 Lakhs
Option D:	50 Lakhs - 10 Lakhs
9.	What is not the characteristics of PPP's
Option A:	Focuses of goods
Option B:	Resources
Option C:	Sharing
Option D:	Continuity
10.	Trademarks relate to
Option A:	Practice and knowledge acquired through experience
Option B:	The protection of proprietary information of commercial value
Option C:	The right to reproduce one's own original work
Option D:	Brand identity

<b>Q2.</b>	<b>Attempt any Two out of Three</b> (10 marks each)
A	What do you mean by a business plan? Explain the issues to be addressed in a business plan?
B	Write a note on the various initiatives by GOI for women entrepreneurs.
C	Give the impact on the marketing aspects of a product by entrepreneur by the use of Digital Marketing

<b>Q3.</b>	<b>Attempt any Two out of Three</b> (10 marks each)
A	Explain the process of closing your business?
B	What are the functions of an entrepreneur in entrepreneurial development?
C	What are the Four types of firm level growth strategy?

<b>Q4.</b>	<b>Attempt any Two out of Three</b> (10 marks each)
A	Explain the steps on harvesting or closing small business.
B	Note on Capital and its importance to entrepreneur.
C	State the Importance of MSME's towards national growth.

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University of Mumbai

Examinations Summer 2022

Program: Computer Engineering

Curriculum Scheme: Rev2016

Examination: BE

Semester VIII

Course Code: CSC801 Course Name: Human Machine Interaction

Time: 2 hours 30 minutes

Max. Marks: 80

Human Machine Interaction(CSC801)

<b>Q1.</b> <b>(20 Marks)</b>	<b>Choose the correct option for the following questions. All the questions are compulsory and carry equal marks</b>
1.	"For every user action, to simplify new system sign up process, error correction system must be provided to facilitate user" Which rule in Schneiderman Golden Rule suits the statement above?
Option A:	Offer informative feedback
Option B:	Strive for consistency
Option C:	Design dialogues to yield closure
Option D:	Error prevention and simple error handling
2.	The design of the HMI systems is generally influenced by :
Option A:	Psychology of the user
Option B:	The physical look of the system
Option C:	Speed of the system
Option D:	The time is taken by the user to learn the system
3.	The economy in a visual pleasing composition refers to-
Option A:	Uniformity of elements based on some principle or plan.
Option B:	Stabilization or equilibrium, a midway center of suspension
Option C:	Frugal and judicious use of display elements
Option D:	Axial duplication
4.	The message which calls attention to conditions that require user action before the system can proceed is :
Option A:	Informational message
Option B:	Status message
Option C:	Critical message
Option D:	Warning message
5.	Mobile platforms those are sold to device makers for nonexclusive distribution on devices are called as
Option A:	Open-sourced platforms
Option B:	Proprietary platforms
Option C:	Licensed platforms
Option D:	Distributors platforms
6.	People's requirements always take precedence over technical requirements. This defines :
Option A:	Transparency
Option B:	Trade-offs
Option C:	Simplicity
Option D:	Responsiveness

7.	A pie chart allows you to easily see
Option A:	Information about the proportion of parts relative to the whole
Option B:	The total number of each category
Option C:	How much data occurs within a range of numbers
Option D:	The spread of the data
8.	Technically games are really just native applications that use similar platform SDKs to create immersive experiences. But they are different from native applications for the reason:
Option A:	They cannot be easily duplicated with web technologies
Option B:	Porting them to multiple mobile platforms is not easier
Option C:	They can be easily duplicated with web technologies
Option D:	They are not compatible with web technologies
9.	To represent proper information on the screen, screen or window density levels can not be more than
Option A:	50 percent
Option B:	40 percent
Option C:	33 percent
Option D:	30 percent
10.	The first deliverable we use to define mobile information architecture is the
Option A:	Clickstreams
Option B:	Site map
Option C:	Wireframe
Option D:	Prototype

<b>Q2.</b> <b>(20 Marks)</b>	<b>Write short notes on any four</b>	<b>5 marks each</b>
A	Icons	
B	Colors	
C	Multimedia	
D	Ergonomics	
E	Screen navigation and flow	
F	Windows presentation styles	

<b>Q3</b> <b>(20 Marks)</b>	<b>Solve any two questions out of three</b>	<b>10 marks each</b>
A	Discuss different phases of the goal directed design process.	
B	Differentiate between Graphical User Interface and Web User Interface.	
C	What is Mobile 2.0? Explain the principles of Mobile 2.0.	

<b>Q4</b> <b>(20 Marks)</b>	<b>Solve any two questions out of three</b>	<b>10 marks each</b>
A	Design a user interface to spread awareness about organ donation. Assume appropriate data required for it.	
B	Design a user interface for the online voting system. Assume suitable data and draw interfaces neatly.	
C	Design a user interface for a movie ticket booking application. Assume suitable data and draw interfaces neatly.	



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QP code - 93307

University of Mumbai

Examinations - Summer 2022

Program: Computer Engineering

Curriculum Scheme: Rev 2016

Examination: BE Semester VIII

Course Code: CSC802 and Course Name: Distributed Computing

Time: 2 hour 30 minutes

Max. Marks: 80

Q1.	Choose the correct option for following questions. All the Questions are compulsory and carry equal marks
1.	Resources and clients transparency that allows movement within a system is called-
Option A:	Mobility transparency
Option B:	Concurrency transparency
Option C:	Performance transparency
Option D:	Replication transparency
2.	In Data centric model-
Option A:	results of only read operations can be replicated to various stores located nearby immediately
Option B:	results of only write operations can be replicated to various stores located nearby immediately
Option C:	results of read and write operations can be replicated to various stores located nearby immediately
Option D:	results of read and write operations can be replicated to all stores
3.	Following is a type of failure that usually can occur in RPC systems-
Option A:	The server crashes after receiving a request and client cannot locate the server
Option B:	Client Cannot Locate the Server
Option C:	The server crashes after receiving a request
Option D:	Server crashes
4.	Which of the following algorithm is Token Based Algorithm for Mutual Exclusion
Option A:	Lamport Algorithm
Option B:	Ricart-Agrawala's Algorithm
Option C:	Suzuki-Kasami's Broadcast Algorithms
Option D:	Maekawa's Algorithm
5.	What is task assignment approach?
Option A:	in which each process is viewed as an individual task.
Option B:	in which each process is viewed as a collection of related tasks
Option C:	in which each process is viewed as a collection of distinct tasks
Option D:	in which each process is viewed as a coordinator of other's tasks
6.	In a distributed file system, mapping between logical and physical objects is-
Option A:	Transparency
Option B:	Client interfacing
Option C:	Migration
Option D:	Naming

7.	In a distributed file system, when a file's physical storage location changes
Option A:	file name need to be changed
Option B:	file name need not to be changed
Option C:	file's host name need to be changed
Option D:	file's local name need to be changed
8.	Which of the following is concurrency transparency
Option A:	Hide differences in data representation and how a resource is accessed
Option B:	Hide that a resource may be shared by several competitive users
Option C:	Hide that a resource may be moved to another location while in use
Option D:	Hides that the resource has multiple copies
9.	In the Bully algorithm, process which is elected as the coordinator is the one having -
Option A:	Lowest Timestamp value
Option B:	Lowest process ID
Option C:	Highest timestamp value
Option D:	Highest process ID
10.	Which of the following is the Passive Server Physical Clock Synchronization algorithm
Option A:	Berkley's Algorithm
Option B:	Cristian's Algorithm
Option C:	Lamport's Algorithm
Option D:	Bully Algorithm

<b>Q2.</b>	
A	<b>Solve any Two (5 marks each)</b>
i.	Discuss in brief the different architectural models in Distributed System?
ii.	What is coordinator process? Explain algorithms used for the selection of coordinator.
iii.	Explain desirable features of Global Scheduling Algorithm
B	<b>Solve any One (10 marks each)</b>
i.	What is the need for Code Migration? Explain the role of Process to resource and Resource to Machine binding in Code Migration.
ii.	Write short note on File caching schemes.

<b>Q3.</b>	
A	<b>Solve any Two 5 marks each</b>
i.	Discuss the different issues and steps involved in a good Load Balancing algorithm.

ii.	What are different Data Consistency Models? (Any 5)
iii.	What are physical clocks? Explain any one Physical Clock Synchronization Algorithm.
B	<b>Solve any One (10 marks each)</b>
i.	Explain Hadoop distributed file system.
ii.	Explain Different issues and goals related to design of Distributed System. Explain Transparency in detail.

<b>Q4.</b>	
A	<b>Solve any Two (5 marks each)</b>
i.	Describe different types of failure models.
ii.	Differentiate between NOS, DOS and Middleware in the design of a distributed systems?
iii.	Explain how Monotonic Read consistency model is different from Read your Write consistency model. Support your answer with suitable example.
B	<b>Solve any One (10 marks each)</b>
i.	Define remote procedure call (RPC)? Describe the working of RPC in detail.
ii.	Differentiate between Token-based algorithm and Non-Token-based algorithm. Explain in detail Raymond's Tree-Based algorithm.

comp

QP code - ~~93475~~ 93471

University of Mumbai  
Program: BE (Computer Engineering) (Choice Based Credit Grading System)  
Curriculum Scheme: Rev2016  
Examination: BE Semester VIII

Course Code: 52755  
Time: 2 hour 30 minutes

Course Name: Adhoc Wireless Networks (DLOC)  
Max. Marks: 80

Q1. (20 Marks )	Choose the correct option for following questions. All the Questions are compulsory and carry equal marks
1.	Military vehicles on battlefield with no existing infrastructure will deploy ----- --
Option A:	LAN
Option B:	Wi-Fi
Option C:	Cell Network
Option D:	MANET
2.	Each channel in Bluetooth layer is ----
Option A:	1 MHz
Option B:	2 MHz
Option C:	3 MHz
Option D:	4 MHz
3.	Wi-Max provides -----
Option A:	VoIP
Option B:	IPTV
Option C:	Both VoIP and IPTV
Option D:	No IPTV services
4.	Which of the following protocols uses both TCP and UDP
Option A:	SMTP
Option B:	Telnet
Option C:	FTP
Option D:	DNS
5.	In shortest path routing algorithm, the path length is measured based on .....
Option A:	Time Delay
Option B:	Number of hops
Option C:	Size of the Routers
Option D:	Routing table
6.	DSDV is a table-driven routing scheme for ad hoc mobile networks based on
Option A:	The Bellman-Ford algorithm.
Option B:	Dijkstra Algorithm
Option C:	Path vector
Option D:	Link state

Comp

QP code - ~~93475~~ 93471

University of Mumbai

Program: BE (Computer Engineering) (Choice Based Credit Grading System)

Curriculum Scheme: Rev2016

Examination: BE Semester VIII

Course Code: 52755

Course Name: Adhoc Wireless Networks (DLOC)

Time: 2 hour 30 minutes

Max. Marks: 80

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Option B:	Dijkstra Algorithm
Option C:	Path vector
Option D:	Link state

7.	What is the type of network in which the topology change from time to time?
Option A:	Wi-Fi
Option B:	Cell network
Option C:	LAN
Option D:	MANET
8.	The layer who protecting the ad hoc routing and forwarding protocols?
Option A:	Transport Layer
Option B:	Application Layer
Option C:	Link Layer
Option D:	Network Layer
9.	Which of the following is routing protocol attack?
Option A:	Session hijacking
Option B:	Rushing attack
Option C:	Repudiation
Option D:	Wormhole
10.	Routing Protocol in VANET is:
Option A:	Topology Based Routing Protocol
Option B:	Interior Gateway Protocol
Option C:	Distance Vector Protocol
Option D:	Link State Protocol

Q2. (20 Marks)	Solve any four out of six	5 marks each
A	What are the Characteristics of Wireless channel. Explain in short.	
B	What are the main issues that need to be addressed while designing MAC protocol for adhoc networks.	
C	How Route maintenance is carried out in AODV protocol? give advantages and disadvantages of AODV.	
D	What are the characteristics of an Ideal Routing Protocols for Adhoc Wireless Network?	
E	Write challenges faced in providing QoS (Quality of Service).	
F	Write short note on: Delay Tolerant Network.	

Q3 (20 Marks)	Solve any two questions out of three	10 marks each
A	Explain issues in designing MAC protocol in adhoc wireless protocol.	
B	What is On-demand (Reactive) routing protocol. Describe the temporarily ordered routing algorithm (TORA) for adhoc networks along with its pros and cons.	
C	Briefly discuss the network security requirements for adhoc networks.	

<b>Q4.</b> <b>(20 Marks)</b>	
<b>A</b>	<b>Solve any two</b> <span style="float: right;"><b>5 marks each</b></span>
i.	Give the difference between cellular networks and adhoc wireless networks.
ii.	Explain components of WAVE (Wireless Access for the Vehicular Environment).
iii.	Explain in short working of ZRP.
<b>B</b>	<b>Solve any one</b> <span style="float: right;"><b>10 marks each</b></span>
i.	Explain in detail the receiver initiated MAC protocol (MARCH). Media Access with Reduced Handshake Protocol (MARCH)
ii.	Briefly explain the state transition diagram for adhoc TCP sender (ATCP).