

University of Mumbai

Examination 2020 under cluster __ (Lead College: _____)

Examinations Commencing from 23rd December 2020 to 6th January 2021 and from 7th January 2021 to 20th January 2021

Program: _____

Curriculum Scheme: Rev2019/2016/2012 (Keep the required)

Examination: BE Semester VIII (Keep the Required)

Course Code: ILO8028 and Course Name: DBM

Time: 2 hour

Max. Marks: 80

NOTE to the Question Paper Setter: (To be deleted before submitting the paper to Semester Coordinator)

1. The question paper will be of total **80 Marks and Two hours duration**. Out of which **40 marks will be of 20 MCQs** carrying two marks each covering all the modules of the syllabus. Remaining two questions carrying 20 marks each (Total **40 marks**) will be of **subjective/descriptive in nature** of 5 or 10 marks as per the requirement of the subject/course and covering all the modules of the syllabus.
2. Referring to setting up MCQs
 - a. You need to check the questions and their answers for their correctness. There should not be any ambiguity in the questions and the options. Only one option should be the Correct Answer.
 - b. Among **20 MCQs** (based on complete syllabus), 8 questions can be under the 'Simple' category, 6 questions can be under the 'Moderate' category, and the remaining 6 questions can be under the 'Difficult' category.
 - c. Please do not reveal answer on this Question Paper.
 - d. Use another template provided to enter the correct answers.
3. Referring to setting up subjective/descriptive questions
 - a. Internal options should be provided in the subjective questions i.e. in case of 5 marks question 3 or 6 questions to be asked, out of which students will solve any two or four respectively. In case of 10 marks questions, 2 or 3 questions to be asked out of which students will solve any one or two respectively.
 - b. The sub questions in Q2 and Q3 have to be set on multiple modules. The paper setter has to make sure that the maximum syllabus is covered while setting up the questions for Q2 and Q3.
 - c. Weightage of the questions has to be decided as per the requirement of the subject. 10 marks questions will only be asked on design orientated subjects or application orientated subjects.
 - d. Paper setters shall select any one option, while setting up the questions, suggested in the template for Q2 and Q3
4. Please save this file with file name as per the sample format given below:

File Name: "Date of Examination_Scheme_Program_Semester_Subject Code_QP Set Number"

For example:

QP set number 1 of Engineering Mathematics-I of First Year Semester I for Rev2019 scheme and scheduled on 7/01/2021 has to have the file name as

0701_R19_FE_I_FEC101_QP1

QP set number 1 of first core course of Mechanical Engineering Semester V for Rev2016 scheme and scheduled on 23/12/2020 has to have the file name as

2312_R16_Mech_V_MEC501_QP1

QP set number 3 of Department Level Optional Course of Computer Engineering Semester VI for Rev2012 scheme and scheduled on 3/01/2021 has to have the file name as

0301_R12_Comp_VI_CSDLO6021_QP3

Q1.	Choose the correct option for following questions. All the Questions are compulsory and carry equal marks
1.	In Network Security CIA stands for:
Option A:	Confidentiality, Integrity and Availability
Option B:	Central Investigation Agency
Option C:	Confidentiality, Intelligence and Accountability
Option D:	Cryptographic Intelligent Algorithm
2.	Which one of the following is not a higher –layer SSL protocol?
Option A:	Alert Protocol
Option B:	Handshake Protocol
Option C:	Alarm Protocol
Option D:	Change Cipher Spec Protocol
3.	A packet filter firewall filters at _____
Option A:	Physical layer
Option B:	Data link layer
Option C:	Network layer or Transport layer
Option D:	Application layer
4.	Mission statement and vision is the part of which Strategic Process.
Option A:	Formulation of Strategy
Option B:	Implementation of Strategy
Option C:	Evaluation of Strategy
Option D:	Internal Analysis Strengths weakness
5.	Which of the following is the first step in strategic planning?
Option A:	set objectives and goals
Option B:	develop the business portfolio
Option C:	define the company mission
Option D:	plan marketing strategies
6.	To fulfill the need of customer , the ability to change the product is called as
Option A:	Accessibility
Option B:	Personalization
Option C:	Customization
Option D:	Dependability
7.	Competitive driver of e-business is
Option A:	Reduced sales costs
Option B:	Reduced service costs
Option C:	Avoiding losing market share to business
Option D:	To obtain supplies more rapidly
8.	The most realistic relationship between e-business and e-commerce is
Option A:	E-commerce is subset of e-business
Option B:	E-commerce is nothing but e-business
Option C:	E-business is subset of e-commerce
Option D:	No relationship exists between e-commerce and e-business

9.	Which of following parameter is not associated with e-commerce security environment?
Option A:	Confidentiality
Option B:	Availability
Option C:	Message Integrity
Option D:	Non repudiation
10.	What is at the heart of any ERP system?
Option A:	Information
Option B:	Employees
Option C:	Customers
Option D:	Database
11.	Web ERP is suitable for _____
Option A:	Both small and big organizations
Option B:	Only big organizations
Option C:	Medium scale organizations
Option D:	Only small organizations
12.	_____ maintains reports of warehouse supplies.
Option A:	ERP financial module
Option B:	ERP Inventory software module
Option C:	ERP Resource module
Option D:	ERP verification module
13.	Which type deals with auction?
Option A:	B2B
Option B:	B2C
Option C:	C2B
Option D:	C2C
14.	Amazon belongs to
Option A:	B2B
Option B:	C2B
Option C:	C2C
Option D:	B2C
15.	What is the percentage of customers who visit a Web site and actually buy something called?
Option A:	Affiliate programs
Option B:	Click-through
Option C:	Spam
Option D:	Conversion rate
16.	Data in _____ bytes size is called Big Data.
Option A:	Tera
Option B:	Giga
Option C:	Peta
Option D:	Meta

17.	The Android software is based on Java and runs in a?
Option A:	Dalvik virtual machine
Option B:	Quadrangle virtual machine
Option C:	Qualcomm virtual machine
Option D:	Snapdragon virtual machine
18.	What is NOT a benefit of BYOD?
Option A:	Reduced costs.
Option B:	Viruses and security issues.
Option C:	Familiarity.
Option D:	Ownership.
19.	What does VNC stand for:
Option A:	Various Network computers
Option B:	Virtual Network Computing
Option C:	Virtual Network Communication
Option D:	Various Network Communication
20.	IPSec provides security at:
Option A:	Physical Layer
Option B:	Network Layer
Option C:	Transport Layer
Option D:	Session Layer

Q2 (20 Marks Each)	
A	Solve any Two 5 marks each
i.	Difference between Physical economy and Digital economy
ii.	Explain Digital Signature
iii.	Types of E-Commerce
B	Solve any One 10 marks each
i.	Explain ERP
ii.	Explain Analysis of Company's Internal and External environment

Q3. (20 Marks Each)	
A	Solve any Two 5 marks each
i.	Write short note on Market research and Advertisement
ii.	Write short note on Firewall
iii.	Explain process of Digital Transformation
B	Solve any One 10 marks each
i.	Explain IOT
ii.	Explain Business Plan Preparation

University of Mumbai
Examination 2020 under cluster 08 (Lead College: PHCET)
Examinations Commencing from 23rd December 2020 to 6th January 2021

Program: **B.E. All Branches**

Curriculum Scheme: Rev2016

Examination: BE Semester VIII

Course Code: ILOC 8026 and Course Name: Research Methodology

Time: 2 hours

Max. Marks: 80

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Q1.	Choose the correct option for following questions. All the Questions are compulsory and carry equal marks
1.	_____ are statements/assumptions made -about the likely outcomes of the problem- which may or may not be true.
Option A:	Hypotheses
Option B:	Analytical models
Option C:	Research questions
Option D:	Marketing research problems
2.	Characteristic of research is _____.
Option A:	Empirical
Option B:	Hypothetical
Option C:	Theoretical
Option D:	Unethical
3.	Attributes of objects, events or things which can be measured are called
Option A:	Qualitative measure
Option B:	Data
Option C:	Variables
Option D:	Invariables
4.	Inductive logic proceeds from
Option A:	General to General
Option B:	Specific to General
Option C:	General to Specific
Option D:	Specific to Specific
5.	This is not the purpose of review of researches done in related fields of study
Option A:	to know what knowledge already exists
Option B:	to know gaps in knowledge that exists
Option C:	to avoid the replication of knowledge that exists
Option D:	to list the studies in their own research work
6.	A company wants to know what are the problems are faced by employees in the night shift duties. The company is intending to undertake
Option A:	Pure research
Option B:	Applied research
Option C:	Basic research

Option D:	Causal research
7.	The process not needed in experimental researches is
Option A:	Reference collection
Option B:	Controlling
Option C:	Observation
Option D:	Manipulation and replication
8.	Fundamental Research is otherwise called
Option A:	Action Research
Option B:	Survey
Option C:	Pilot study
Option D:	Pure Research
9.	Which of the following tasks is not a part of research design?
Option A:	Design the exploratory, descriptive, and/or causal phases of the research.
Option B:	Construct and pretest a study instrument.
Option C:	Formulate the sampling plan
Option D:	Develop hypotheses
10.	Research design is a blue print, outline and
Option A:	Plan
Option B:	System
Option C:	Strategy
Option D:	Guide
11.	Which technique is generally followed when the population is finite?
Option A:	Area sampling technique
Option B:	Purposive sampling technique
Option C:	Systematic sampling technique
Option D:	Random sampling technique
12.	In an experiment, the group that does not receive the intervention is called
Option A:	The experimental group
Option B:	The participant group
Option C:	The control group
Option D:	The treatment group
13.	Questionnaire is a
Option A:	Research method
Option B:	Measurement technique
Option C:	Tool for data collection
Option D:	Data analysis technique
14.	A Type 1 error occurs in a situation where:
Option A:	The null hypothesis is accepted when it is in fact true
Option B:	The null hypothesis is rejected when it is in fact false
Option C:	The null hypothesis is rejected when it is in fact true
Option D:	The null hypothesis is accepted when it is in fact false

15.	Which of the following is not a data-collection method?
Option A:	Research questions
Option B:	Unstructured interviewing
Option C:	Postal survey questionnaires
Option D:	Participant observation
16.	When a hypothesis is stated negatively it is called
Option A:	Relational Hypothesis
Option B:	Situational Hypothesis
Option C:	Null Hypothesis
Option D:	Casual Hypothesis
17.	Which of the following statement is wrong regarding inductive generalizations?
Option A:	They are based on observed facts and realistic foundation
Option B:	is scientific in character and some of the important theorems of the physical and social sciences have been developed through this method
Option C:	It is helpful in finding out the material truth
Option D:	It is easy, cost effective and time saving method
18.	Developing a researchable question would not involve
Option A:	Considering the time and resources available to you
Option B:	Bearing in mind your technical expertise in the area of research
Option C:	Deciding what statistical software to use
Option D:	Assessing the work involved
19.	Research ethics do not include
Option A:	Integrity
Option B:	Honesty
Option C:	Subjectivity
Option D:	Objectivity
20.	Failure to acknowledge the borrowed material is called
Option A:	Acknowledgement
Option B:	Index
Option C:	Bibliography
Option D:	Plagiarism

Q2.	Solve any Four out of Six	5 marks each
A	What are the problems faced by Researcher	
B	Give the Characteristics of Research Explain in detail	
C	Explain Qualitative & Quantitative Research	
D	What is a Research Design? Explain its Necessity	
E	What are the Characteristics of good hypothesis ? Explain type I & type II errors	
F	What are the differences between observation and interviewing as methods of data collection?	

Q3.	Solve any Four out of Six	5 marks each
A	Define Hypothesis with example	
B	Explain Ex post facto Research with example	
C	What do you mean by Sampling ? What are the types of Sampling	
D	Enumerate the different methods of collecting data giving one example each	
E	State the sources of research problem. How a problem is identified? Enumerate the criteria for the selection of a problem	
F	“Ethics in research is the need of the hour” Justify the statement	

University of Mumbai

Examination 2020 under cluster __ (Lead College: APSIT)

Examinations Commencing from 23rd December 2020 to 6th January 2021 and from 7th January 2021 to 20th January 2021

Program: ALL

Curriculum Scheme: Rev2016

Examination: FE/SE/TE/BE Semester VIII

Course Code: ILO8024 and Course Name: HUMAN RESOURCE MANAGEMENT

Time: 2 hour

Max. Marks: 80

Q1.	Choose the correct option for following questions. All the Questions are compulsory and carry equal marks. 2 marks each (40 Marks)
1.	Human resource management excludes
Option A:	Motivation
Option B:	Selling
Option C:	Rewards and compensation
Option D:	Recruitment
2.	Human resource Planning is choosing the
Option A:	Right product
Option B:	Right person
Option C:	Right producers
Option D:	Right human behaviour
3.	Maslow's theory of human needs include...
Option A:	Responsibility
Option B:	Self-actualization
Option C:	Self-management
Option D:	Empowerment
4.	_____ represent basic convictions that "a specific mode of conduct or end state of existence is personally or socially preferable to an opposite or converse mode of conduct or end-state of existence."
Option A:	Values
Option B:	Attitude
Option C:	Motivation
Option D:	Ethics
5.	_____ is a process by which we organize and interpret sensory impressions in order to give meaning to our environment
Option A:	Decision making
Option B:	Negotiation
Option C:	Perception
Option D:	Conflict negotiation
6.	Which one of the below mentioned functions is the part of the organizational level?
Option A:	Organisational Culture
Option B:	Group Structure
Option C:	Team

Option D:	Group Norms
7.	A leader should be able to _____
Option A:	Take selfish decisions
Option B:	Explain organisational goals
Option C:	Sack the employees
Option D:	Fire the employees
8.	Group rules are for _____ of the members.
Option A:	Harassment
Option B:	Behaviour
Option C:	Punishment
Option D:	Sacking
9.	What is the first step in the appraisal process?
Option A:	Giving feedback
Option B:	Defining the job
Option C:	Administering the appraisal tool
Option D:	Making plans to provide training
10.	Power that is based on fear called as
Option A:	Reward Power
Option B:	Information Power
Option C:	Coercive Power
Option D:	Legitimate Power
11.	Human Resource Planning is done based on
Option A:	Market Condition
Option B:	Financial Condition
Option C:	Organisational Plan
Option D:	External Environment
12.	Which is the least expensive method for recruitments?
Option A:	Walk - ins, write - ins and talk - ins
Option B:	Campus placements
Option C:	Employment exchanges
Option D:	Consultants
13.	Development is not related to
Option A:	Technical aspects
Option B:	Conceptual
Option C:	Human skills
Option D:	Termination
14.	Which one from the following options is challenge in diversity at workplace?
Option A:	Increase in Productivity
Option B:	High Performance team building
Option C:	Conflicts
Option D:	Increase in Pay

15.	Which of this is a step in training process
Option A:	Use of evaluation models
Option B:	Obstacles in the system
Option C:	KSA deficiency
Option D:	Provide proper feedback
16.	Which among the following will not be included in Business Process Reengineering?
Option A:	To set the vision & business goals
Option B:	To dissuade employees from using technology
Option C:	Establish a competent team
Option D:	Redesign the process
17.	Which one is generation Z?
Option A:	Born Between 2001-2020
Option B:	Born Between 1965-1981
Option C:	Born Between 1941-1964
Option D:	Born Between 1982-2000
18.	Which conflict occurs within an individual?
Option A:	Interpersonal
Option B:	Intra-personal
Option C:	Intra-Group
Option D:	Inter Group
19.	As per the factories Act "CHILD" means a person who has not completed ----- years of age
Option A:	15
Option B:	16
Option C:	17
Option D:	18
20.	Shops and Establishment Act applies to all-----
Option A:	Cultivate Shops , Restaurants, Hotels, Theatres, Amusement parks etc.
Option B:	Only Shops
Option C:	Only Hotels
Option D:	Only Theatres

Q. 2 Solve any Two Questions out of Three

10 marks each (20 Marks)

- A) Explain the appraisal process and the methods of appraisal (10)
- B) Explain the recruitment process and the external sources of recruitment in detail. (10)
- C) Explain evolution and functions of HRM (10)

Q. 3 Solve any Two out of Three

10 marks each (20 Marks)

- A) Explain organizational behavior and its determinants. (10)
- B) Define the term 'training and development'. Explain the importance and various inputs required for a training and development program. (10)

C)

i) Write short note on TQM. (5)

ii) Define Ethics and explain characteristics of ethics (5)

University of Mumbai

Examination 2020 under cluster __ (Lead College: _____)

Examinations Commencing from 23rd December 2020 to 6th January 2021 and from 7th January 2021 to 20th January 2021

Program: **ALL**

Curriculum Scheme: Rev2016

Examination: BE Semester VIII

Course Code: ILO8027 and Course Name: IPR and Patenting

Time: 2-hour

Max. Marks: 80

Q1.	Choose the correct option for following questions. All the Questions are compulsory and carry equal marks
1.	A _____ is a sign used on products that have a specific geographical origin and possess qualities or a reputation that are due to that origin.
Option A:	Logo
Option B:	Geographical Indication (GI)
Option C:	Trademark
Option D:	Patents & Copyrights
2.	A company wishes to ensure that no one else can use their logo should file rights for a
Option A:	Patents
Option B:	Copyrights
Option C:	Trade mark
Option D:	Industrial design
3.	A vocalist who wishes to assign the rights to reproduce a video he has made of his concert should go for filing a
Option A:	Patents
Option B:	Copyrights
Option C:	Trade mark
Option D:	Industrial design
4.	A _____ extinguishes all rights of the IP holder.
Option A:	Grant
Option B:	Sale
Option C:	Deal
Option D:	Infringement
5.	The industrial design is protected for _____ years
Option A:	15
Option B:	10
Option C:	5
Option D:	20

6.	Patent right is not _____
Option A:	Limited period right
Option B:	Territorial right
Option C:	Absolute right
Option D:	Natural right
7.	PCT stands for _____
Option A:	Patent Certification Treaty
Option B:	Patent Cooperation Trade
Option C:	Patent Cooperation Treaty
Option D:	Patent Copyright Treaty
8.	E-commerce thing that needs to be considered with respect to IP is _____
Option A:	traditional knowledge
Option B:	Media
Option C:	Logo
Option D:	Photos
9.	TKRC is _____
Option A:	Traditional Knowledge Resource Classification
Option B:	Total Knowledge Resource Classification
Option C:	Traditional Knowledge Resource Contents
Option D:	True Knowledge Resource Contents
10.	What is included in biological resources?
Option A:	Animals
Option B:	human genetic material
Option C:	softwares with Genetic algorithms
Option D:	Designs
11.	What protects the intellectual property created by inventors?
Option A:	Copyright
Option B:	geographical indications
Option C:	Patents
Option D:	registered designs
12.	Is a patent granted in India valid in any other country?
Option A:	Yes
Option B:	only in signatory countries to TRIPS
Option C:	No
Option D:	only to neighboring countries
13.	Which of the following is not patentable according to Indian Patent Act 1970?

Option A:	Pin
Option B:	Chair
Option C:	washing machine
Option D:	a new method of horticulture
14.	Where is the Japan Patent Office located?
Option A:	Tokyo
Option B:	Kyoto
Option C:	Osaka
Option D:	Nara
15.	_____ means a person who in law represents the estate of a deceased person;
Option A:	Person
Option B:	Patentee
Option C:	legal representative
Option D:	person interested
16.	_____ means an application for patent made in accordance with the Patent Cooperation Treaty.
Option A:	patent of addition
Option B:	Patent
Option C:	international application
Option D:	new invention
17.	_____ means trespass on an intellectual property.
Option A:	Enforcement
Option B:	Licensing
Option C:	Infringement
Option D:	Assignment
18.	IPC in patenting means
Option A:	Indian Patent Classification
Option B:	International Panel Code
Option C:	International Patent Classification
Option D:	International Postal Code
19.	In compulsory license, the right of the licensee is _____
Option A:	Exclusive license
Option B:	Non-exclusive
Option C:	Assignable
Option D:	non-assignable
20.	The Indian Patent Act was established in
Option A:	1790

Option B:	1947
Option C:	1970
Option D:	2020

Q2.	Solve any Four out of Six	5 marks each
A	Describe different types of Intellectual Property.	
B	What are the impacts of IP Rights?	
C	Enumerate the procedure to register the copyright.	
D	Explain Paris Convention Treaty.	
E	What are challenges to Intellectual Property in Traditional Knowledge?	
F	Explain in brief about Intellectual Property and Digital Economy.	

Q3.	Solve any Four out of Six	5 marks each
A	Explain the contents of complete specification for patent application.	
B	Discuss the major steps involved to register a patent.	
C	Write a short note on rights and liabilities of patentees.	
D	Write a short note on US Scenario of Patent Rules	
E	List and explain types of claims.	
F	Describe non-patentable inventions with example.	

Program: BE (ALL BRANCHES)

Curriculum Scheme: Rev2020

Examination: BESemesterVIII

Course Code:ILOC8021and Course Name: Project Management

Time: 2 hour

Max. Marks: 80

Q1.	Choose the correct option for following questions. All the Questions are compulsory and carry equal marks
1.	Which of the following is the most important element of Project Management Plan that is useful in Planning process:
Option A:	Risk Management activities
Option B:	Quality Assurance activities
Option C:	Activity Resource requirements
Option D:	Budget Control activities
2.	CPM is an acronym for
Option A:	Control Path Method
Option B:	Critical Path Method
Option C:	Cohesion Path Method
Option D:	Control Path Model
3.	A Project with a total funding of \$100,000 finished with a BAC value of \$95,000. What term can BEST describe the difference of \$5,000?
Option A:	Cost Variance
Option B:	Management Overhead
Option C:	Management Contingency Reserve
Option D:	Schedule Variance
4.	Activity Definition is typically performed by which of the following:
Option A:	Project Manager who created the WBS
Option B:	Project Team Members responsible for the work package
Option C:	Project Officer
Option D:	Project Stakeholder
5.	Expected risks in a project is represented in a tabular form by
Option A:	Risk Table
Option B:	Assessment Table
Option C:	Time Table
Option D:	Round Table
6.	A project has a 60% chance of a \$100,000 profit and a 40 percent of a \$100,000 loss. The Expected Monetary Value for the project is:
Option A:	\$100,000 profit
Option B:	\$60,000 loss
Option C:	\$ 20,000 profit
Option D:	\$40,000 loss

7.	The time taken to break even or pay back the initial investment is called as
Option A:	Back period.
Option B:	Payback period.
Option C:	Cash back period.
Option D:	Rate of Return.
8.	The expenditure and income taken place in a project is indicated by
Option A:	Cash flow forecast.
Option B:	Cost analysis.
Option C:	Fund flow.
Option D:	Technical forecast.
9.	The method which is carried out to calculate the earliest dates on which each activity may be started and completed is
Option A:	Backward pass
Option B:	Forward pass
Option C:	No pass.
Option D:	Increasing pass.
10.	The shortest time in which we could expect to complete the activity, barring outright miracles is called as
Option A:	Optimistic Time
Option B:	Pessimistic Time
Option C:	Most Likely Time
Option D:	Shortest Time
11.	Which of these is not one of the constraints of a project?
Option A:	Scope
Option B:	Team
Option C:	Resources
Option D:	Budget
12.	Which is not one of the stages of Project Management Lifecycle?
Option A:	Definition and Conceptualization
Option B:	Management and Measurement
Option C:	Planning and Budgeting
Option D:	Execution and Control
13.	Activities A, B, and C are the immediate predecessors for Y activity. If the earliest finish times for the three activities are 12, 15, and 10, then the earliest start time for Y will be
Option A:	10
Option B:	15
Option C:	12
Option D:	100
14.	The critical path is referred to as the
Option A:	Most direct path from the beginning node to the ending node

Option B:	Shortest path in terms of time
Option C:	Longest path in terms of time
Option D:	Path with the largest amount of slack time
15.	A schedule activity may begin 10 days before the predecessor activity finishes. This is an example of:
Option A:	Finish-to-Start
Option B:	Start-to-Finish
Option C:	Start-to-Start
Option D:	Finish-to-Finish
16.	Resource requirement in project becomes constant while the project is in its what progress stage
Option A:	40 to 55%
Option B:	55 to 70%
Option C:	70 to 80%
Option D:	80 to 95%
17.	What limits the options of the project team?
Option A:	Constraints
Option B:	Assumptions
Option C:	Technology
Option D:	Deliverables
18.	The difference between the cumulative earned value of the work performed and the cumulative actual cost is known as
Option A:	Cost performance index
Option B:	Cost variance
Option C:	Budgeted costs
Option D:	Cost quality index
19.	Which of the following does NOT generate changes to the Project documents:
Option A:	Define Activities
Option B:	Sequence Activities
Option C:	Estimate Activity Resources
Option D:	Estimate Activity Durations
20.	If the Earned Value is equal to Actual Cost, it means
Option A:	Project is on budget and on schedule
Option B:	Schedule variance index is 1
Option C:	There is no schedule variance
Option D:	There is no cost variance

Q2	Solve any Two Questions out of three.	5 marks each
A	I. Compare AOA and AON	
	II. Compare internal risk and external risk.	
	III. State the limitations of Gantt chart	
B	Solve any One	10 marks each
	I. What is Work breakdown structure. Draw and explain the WBS for hospital management system.	
	II. What is project crashing. Explain with the help of suitable example.	

Q3	Solve any Two Questions out of Three	5 marks each
A	I. List and explain the phases of project life	
	II. Why leveling of resources is preferred to large fluctuations, justify ?	
	III. List the steps involved in terminating a project.	
B	Solve any One	10 marks each
	I. Explain the terms qualitative risk and quantitative risk. List and explain the risk response strategies.	
	II. What are the knowledge areas and process groups in Project Management as per PMI?	

University of Mumbai

Examination 2020 under cluster __ (Lead College: _____)

Examinations Commencing from 23rd December 2020 to 6th January 2021 and from 7th January 2021 to 20th January 2021

Program: **All**

Curriculum Scheme: Rev2016

Examination: BE

Semester VIII

Course Code: ILO8022

Course Name: Finance management

Time: 2 hour

Max. Marks: 80

Q1.	Choose the correct option for following questions. All the Questions are compulsory and carry equal marks
1.	_____ are a long-term promissory notes with maturities ranging from 5 to 30 years.
Option A:	Notes
Option B:	Shares
Option C:	Bonds
Option D:	Commercial Papers
2.	Which of the following is not the Financial Services in Indian Financial System?
Option A:	Local Bankers
Option B:	Investment Banking
Option C:	Credit Rating
Option D:	Asset Management
3.	The regulator for Primary and secondary market is
Option A:	IRDA
Option B:	SEBI
Option C:	RBI
Option D:	CRISIL
4.	With a well-diversified portfolio, an investor can reduce
Option A:	Unsystematic risk
Option B:	systematic risk
Option C:	Market Risk
Option D:	finance risk
5.	A statistical measure of the degree to which two variables (e.g., securities' returns) move together.
Option A:	Certainty equivalent
Option B:	Covariance
Option C:	Variance
Option D:	Coefficient of variation
6.	How you can turn a portfolio having two risky securities into risk less if
Option A:	The securities are completely negatively correlated
Option B:	The securities are completely positively correlated
Option C:	If the correlation ranges between zero and one

Option D:	If the correlation ranges between zero and two
7.	When the concept of ratio is defined in respected to the items shown in the financial statements, it is termed as
Option A:	Accounting ratio
Option B:	Financial ratio
Option C:	Costing ratio
Option D:	leverage Ratio
8.	When the concept of ratio is defined in respected to the items shown in the financial statements, it is termed as
Option A:	Accounting ratio
Option B:	Financial ratio
Option C:	Costing ratio
Option D:	leverage Ratio
9.	What is the value of the firm usually based on
Option A:	The value of debt and equity.
Option B:	The value of equity.
Option C:	The value of debt.
Option D:	The value of assets plus liabilities.
10.	The assets that can be converted into cash within a short period (i.e.1 year or less) are known as
Option A:	Current assets
Option B:	Fixed assets
Option C:	Intangible assets
Option D:	Investments
11.	The assets that can be converted into cash within a short period (i.e.1 year or less) are known as
Option A:	Current assets
Option B:	Fixed assets
Option C:	Intangible assets
Option D:	Investments
12.	The use of NPV rule in investment decisions require information about –
Option A:	Profit
Option B:	Risk
Option C:	Time value of money
Option D:	Cash flows
13.	Which among the following is not a current liability?
Option A:	Equity Shares
Option B:	Interest payable
Option C:	Accrued Expenses
Option D:	Accounts Payable
14.	The XYZ purchases a new equipment. The selected data is given below: Cost of equipment: Rs 25,000, Useful life of equipment: 5 years, Tax rate: 30%. If

	equipment is depreciated using straight line method, what is the depreciation tax benefit associated with the new equipment?
Option A:	Rs 35000
Option B:	Rs 1500
Option C:	Rs 7500
Option D:	Rs 5000
15.	Gross Working Capital is the capital invested in
Option A:	Total Assets
Option B:	Total Assets minus Total Liabilities
Option C:	Total Current Assets
Option D:	Current Assets minus Current Liabilities
16.	In _____ approach, the capital structure decision is relevant to the valuation of the firm.
Option A:	Net income
Option B:	Net operating income
Option C:	Traditional
Option D:	Miller and Modigliani
17.	Under the lease agreement, the lessee gets the right to
Option A:	Share profits earned by the lessor
Option B:	Participate in the management of the organization
Option C:	Use the asset for a specified period
Option D:	Sell the assets
18.	What assumptions have to consider to approach the Net operating income to valuation?
Option A:	that debt and equity levels remain unchanged.
Option B:	that interest expense and taxes are included in the calculation
Option C:	that dividends increase at a constant rate.
Option D:	that ko remains constant regardless of changes in leverage.
19.	If a firm has low fixed costs relative to all other firms in the same industry, a large change in sales volume (either up or down) would have:
Option A:	a smaller change in EBIT for the firm versus the other firms.
Option B:	no effect in any way on the firms as volume does not effect fixed costs.
Option C:	a decreasing effect on the cyclical nature of the business.
Option D:	a larger change in EBIT for the firm versus the other firms.
20.	Which of the following are theories for dividend relevance?
Option A:	Walter's Model
Option B:	MM Approach
Option C:	Game theory
Option D:	Market Value theory

Q2	Solve any Four out of Six	5 marks each
A	What functions are performed by the Reserve Bank of India?	
B	A 12 - payment annuity of Rs.20,000 will begin 8 years hence. (The first payment	

	occurs at the end of 8 years). What is the present value of this annuity if the discount rate is 14 percent?
C	What are the Sources of Short Term Financing?
D	Examine critically "Debentures" as a source of Corporate Finance
E	How to calculate discounted payback period for a project? (assume suitable data)
F	Discuss traditional approach of capital structure design

Q3	Solve any Four out of Six	5 marks each
A	State and illustrate different financial instruments	
B	What are the risk associated with business and how are they measured?	
C	What is the importance of Financial Ratio Analysis?	
D	Discuss factor affecting working capital needs of an entity	
E	Discuss Modigliani-Miller (MM) approach for capital structure	
F	Explain the Factors determining Dividend Policy.	

University of Mumbai

Examination 2020 under cluster 8 (Lead College: PHCET)

Examinations Commencing from 23rd December 2020 to 6th January 2021 and from 7th January 2021
to 20th January 2021

Program: **All Branch**

Curriculum Scheme: Rev 2016

Examination: BE Semester VIII

Course Code: ILO8023 and Course Name: Entrepreneurship Development and Management
Time: 2 hour Max. Marks: 80

Q1.	Choose the correct option for following questions. All the Questions are compulsory and carry equal marks
1.	MUDRA stands for _____ .
Option A:	Metropolitan and Urban Development Regulatory Authority
Option B:	A scheme under Ministry of AYUSH
Option C:	Micro Units Development and Refinance Agency
Option D:	Macro Units Development and Refinance Agency
2.	What is Mahila Vikas Nidhi?
Option A:	It offers developmental assistance for pursuit of income generating activities to women
Option B:	housing scheme for women
Option C:	subsidized gas cylinder
Option D:	Subsidy scheme for women
3.	Enterprise is classified as medium if
Option A:	Annual turnover not more than 15cr
Option B:	Annual turnover not more than 250cr
Option C:	Annual turnover not more than 25cr
Option D:	Annual turnover not more than 50cr
4.	What is CVY?
Option A:	Coir Vikas Yojana
Option B:	Cottage Vikas Yojana
Option C:	Cotton Vikas Yojana
Option D:	Communication Vikas Yojana
5.	What is purpose of National Manufacturing Competitiveness Programme
Option A:	to support the SMEs to get loan
Option B:	to support the SMEs to get market
Option C:	to support the SMEs to get land
Option D:	to support the SMEs in their endeavor to become competitive
6.	IPR stands for _____
Option A:	Intellectual Property Rights
Option B:	Individual Property Rights
Option C:	Indian Property Rights

Option D:	Institutional property rights
7.	One of the disadvantages of a franchise business for a franchisee is,
Option A:	Lack of market availability
Option B:	Lack of independence.
Option C:	Lack of training
Option D:	Lack of brand identity.
8.	In PESTEL analysis, 'P' stands for:
Option A:	political
Option B:	population
Option C:	people
Option D:	profit
9.	Question Marks in BCG matrix represents,
Option A:	High Growth, Low Market Share
Option B:	Low Growth, Low Market Share
Option C:	Low Growth, High Market Share
Option D:	High Growth, High Market Share
10.	A good Business plan _____ .
Option A:	Predict the future.
Option B:	Predict the demand.
Option C:	Can attract the investors.
Option D:	Guarantee profit.
11.	When the companies mutually agreed to become partners in fairly & friendly way to run the business, then it is called as,
Option A:	collaboration
Option B:	franchise
Option C:	acquisition
Option D:	merger
12.	Document that can convince the reader 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
13.	Which of the following is NOT the example of PPP project?
Option A:	Mumbai Metro
Option B:	Sister Nivedita Bridge in Kolkata
Option C:	Underground car parking system in Kolkata
Option D:	Ola Travelling system
14.	Which of the following questions are NOT answered by a business plan?
Option A:	Where am I now?
Option B:	Where am I going?
Option C:	How will I get there?

Option D:	Why should I do this business?
15.	Who is appointed as a chairperson of the Mission Directorate (Executive Committee) level of National Skill Development Mission.
Option A:	Secretary, MSDE
Option B:	Minister, MSDE
Option C:	Secretary, Shiksha Mantralaya
Option D:	Minister, Shiksha Mantralaya
16.	Which one of the following is NOT the category of clients in MUDRA Bank?
Option A:	Shishu
Option B:	Kishor
Option C:	Tarun
Option D:	Vruddha
17.	What is the process of one company taking over by the other called?
Option A:	Merger
Option B:	Acquisition
Option C:	Going public
Option D:	Write off
18.	What is Vertical Merger?
Option A:	takes a company a step closer towards monopoly by eliminating a competitor
Option B:	combination of two entities at different stages of the industrial or production process
Option C:	the shareholders of one entity receives cash instead of shares in the merged entity
Option D:	merger between two entities in unrelated industries
19.	_____ refers to the successful selling of a product or service in a specific market.
Option A:	Market penetration
Option B:	Advertisement
Option C:	outreach
Option D:	consolidation
20.	What is NOT an IPO
Option A:	An initial public offering (IPO) refers to the process of offering shares of a private corporation to the public in a new stock issuance.
Option B:	Initial public offering or stock market launch is a type of public offering in which shares of a company are sold to institutional investors and usually also retail investors.
Option C:	An initial public offering (IPO) refers to the process of offering shares of a private corporation to the public in a new stock issuance.
Option D:	IPO is transferring company to charitable trust

Q2	Solve any Four out of Six.	5 marks each
A	Discuss challenges faced by MSMEs.	
B	Explain the various forms of business ownership.	
C	Explain new product development process.	
D	Explain MSME with respect to following points: 1) The industries that come under MSME, 2) Definitions of micro, small and medium enterprises In accordance with the provision of Micro, Small & Medium Enterprises Development (MSMED) Act, 2006, 3) benefits of MSME registration.	
E	Explain PMEGP with respect to the following points: 1) It's objectives, 2) Eligibility criteria for PMEGP, 3) It's features	
F	Explain the small business life cycle in detail.	

Q3.	Solve any Four out of Six.	5 marks each
A	Discuss various funding schemes for women entrepreneurs	
B	Explain marketing schemes for MSMEs	
C	What do you mean by MSME?	
D	Explain the importance of business plan for new business.	
E	What are the various sources of a finance for new business & explain the importance of capital to entrepreneurship.	
F	Explain supply chain management.	

University of Mumbai

Examination 2020 under cluster __ (Lead College: _____)

Examinations Commencing from 23rd December 2020 to 6th January 2021 and from 7th January 2021
to 20th January 2021

Program: ALL

Curriculum Scheme: Rev2016

Examination: BE Semester: VIII

Course Code: ILO8029 and Course Name: Environmental management

Time: 2 hour

Max. Marks: 80

Q1.	Choose the correct option for following questions. All the Questions are compulsory and carry equal marks
1.	Abiotic environment does not include
Option A:	Soil
Option B:	Water
Option C:	Air
Option D:	Plant
2.	A relatively dense layer of band which is found in the thermosphere is known as?
Option A:	Troposphere
Option B:	Mesosphere
Option C:	Stratosphere
Option D:	Ionosphere
3.	The word environment is derived from French word
Option A:	Environner
Option B:	Environnering
Option C:	E-Environner
Option D:	Envo
4.	Sunder LalBahuguna is famous for
Option A:	Narmada BachaoAndolan
Option B:	TehriBachoAndolan
Option C:	Ganga BachoAndolan
Option D:	Jungle BachoAndolan
5.	Which of the following conceptual components of the environment are effective transporters of matter?
Option A:	Hydrosphere and lithosphere
Option B:	Atmosphere and lithosphere
Option C:	Atmosphere and hydrosphere
Option D:	Lithosphere and biosphere
6.	Acid rain can be prevented by

Option A:	Increasing the emission of SO ₂ and NO ₂
Option B:	Decreasing the emission of SO ₂ and NO ₂
Option C:	Increasing the emission of HCL and Phosphate
Option D:	Decreasing the emission of HCL and Phosphate
7.	To maintain ecological balance and regulate the population size of different animals, this is useful
Option A:	Sun chain
Option B:	Wind chain
Option C:	Food chain
Option D:	Grass chain
8.	The tropical grasslands in Africa with tall grasses scattered with shrubs or stunted trees are called
Option A:	Savanas
Option B:	Pampas
Option C:	Steppes
Option D:	Prairies
9.	Among the ecosystem mentioned below , where one can find maximum biodiversity
Option A:	Mangroves
Option B:	Desert
Option C:	Coral Reefs
Option D:	Alpine meadows
10.	Which of the following helped in the saving of trees?
Option A:	Pouring of water
Option B:	Developing of chemical manuals
Option C:	Use of modern agriculture
Option D:	Development of iron and steel
11.	Which of the following model satisfies four conditions - Consistently satisfactory, Sustainable economic performance, Ethical actions and Behaviour.
Option A:	Spiral Model
Option B:	Corporate Citizenship Model
Option C:	Corporate Civil Model
Option D:	Spiral Model
12.	Supplying socially harmless products, Adopt fair pricing and Provide good service after sales are responsibilities towards -
Option A:	Consumer
Option B:	Seller
Option C:	Dealer
Option D:	Manufacturer
13.	Which is not a decided component amongst the following to maintain public

	health and safety to ensure quality of total environment ?
Option A:	Water
Option B:	Air
Option C:	Junk food
Option D:	Radiation
14.	CER stands for -
Option A:	Corporate Environmental Responsibility
Option B:	Complete Environmental Responsibility
Option C:	Corporate Energy Responsibility
Option D:	Corporate Environmental Response
15.	The term 'Municipal Solid Waste' is used to describe which kind of solid waste?
Option A:	Non toxic
Option B:	Toxic
Option C:	Non hazardous
Option D:	Hazardous
16.	ISO – 14001 gives stress on
Option A:	Plan – Do -check -Act
Option B:	Environmental protection
Option C:	Prevention rather than detection
Option D:	Proceed-Do-correct-Act
17.	What is not covered in the ISO-14000 ?
Option A:	Adoption of environmental safety guideline
Option B:	Energy audit in Industry
Option C:	Adoption of clean environment
Option D:	Adoption of environmental management system in industry or organization
18.	Name the Ministry which deals with environment related issues
Option A:	Ministry of Water Resources
Option B:	Ministry of Forest
Option C:	Ministry of Environment , Forests and Climate change (MoEFCC)
Option D:	Ministry of Agriculture
19.	Under _____ Act, Rules relative to various aspects of management of hazardous chemicals, wastes. have been notified.
Option A:	Water Act (1974)
Option B:	Air Act (1981)
Option C:	Environment Protection Act (1986)
Option D:	Biodiversity Act (2002)

20.	_____ of the Constitution of India directs the State to protect and improve the environment and safeguard wildlife and forests.
Option A:	Article 51A
Option B:	Article 58A
Option C:	Article 1A
Option D:	Article 48A

Q2	Solve any Four out of Six (Total 20Marks)
A	What are different environmental issues relevant to India
B	State the various carrier opportunities in Environmental Management
C	Describe any TWO types of Ecosystems
D	What is relationship between Food chain and Food Web
E	What is an EMS certification all about.
F	Give a brief account of Air (P and CP Act)
Q3.	Solve any Two Questions out of Three (Total 20 Marks)
A	Explain what is meant by hazardous waste and how it can be dealt with.
B	Explain the role of environment management and total quality management to achieve total quality environmental management
C	Explain some of the common sources of water pollutants and their effects on humans, plants and animals.

University of Mumbai

Examination 2020 under cluster __ (Lead College: _____)

Examinations Commencing from 23rd December 2020 to 6th January 2021 and from 7th January 2021 to 20th January 2021

Program: Institute Level Elective

Curriculum Scheme: Rev2016

Examination: BE Semester VIII

Course Code: ILO8025 and Course Name: PE and CSR

Time: 2 hour

Max. Marks: 80

1. Please save this file with file name as per the sample format given below:

File Name: "Date of Examination_Scheme_Program_Semester_Subject Code_QP Set Number"

For example:

QP set number 1 of Engineering Mathematics-I of First Year Semester I for Rev2019 scheme and scheduled on 7/01/2021 has to have the file name as

0701_R19_FE_I_FEC101_QP1

QP set number 1 of first core course of Mechanical Engineering Semester V for Rev2016 scheme and scheduled on 23/12/2020 has to have the file name as

2312_R16_Mech_V_MEC501_QP1

QP set number 3 of Department Level Optional Course of Computer Engineering Semester VI for Rev2012 scheme and scheduled on 3/01/2021 has to have the file name as

0301_R12_Comp_VI_CSDL06021_QP3

Q1.	Choose the correct option for following questions. All the Questions are compulsory and carry equal marks
1.	The inclusive term used to refer to any net benefits produced by an action.
Option A:	ethic of virtue
Option B:	ethic of care
Option C:	Utilitarianism
Option D:	Utility
2.	The market for automobiles is an example of?
Option A:	Monopolistic competition.
Option B:	Duopoly.
Option C:	Differentiated oligopoly.
Option D:	Pure oligopoly.
3.	Rights that all human beings everywhere possess to an equal extent simply by virtue of being human beings is,
Option A:	Right
Option B:	Legal right
Option C:	Moral rights or human rights
Option D:	Characteristic of Rights
4.	The gradual breakdown of ozone gas in the stratosphere above us caused by the release of chlorofluorocarbons (CFCs) into the air.

Option A:	ozone depletion
Option B:	Global warming
Option C:	Pollution
Option D:	Greenhouse gases
5.	Which following statement is explain about Negative Rights?
Option A:	Duties of others have to not interfere in certain activities of the person who holds the right.
Option B:	Duties of other agents (it is not always clear who) to provide the holder of the right with whatever he or she needs to freely pursue his or her interests.
Option C:	Provide a basis for justifying one's actions and for invoking the protection or aid of others
Option D:	Are correlated with duties others have toward the person with the right
6.	The undesirable and unintended contamination of the environment by human activity such as manufacturing, waste disposal, burning fossil fuels, etc. is called as ?
Option A:	Pollution
Option B:	Resource depletion
Option C:	Greenhouse gases
Option D:	Global warming
7.	Discrimination that is not consciously or deliberately sought, but is brought about by stereotypes or as an unintended outcome is called as..
Option A:	Intentional
Option B:	Institutional
Option C:	Individual
Option D:	Unintentional
8.	Perfectly competitive markets encourage firms to use resources efficiently to keep costs?
Option A:	Low
Option B:	Moderate
Option C:	Zero
Option D:	High
9.	Which of the following is not a category of Sustainability?
Option A:	Environmental Sustainability
Option B:	Natural Sustainability
Option C:	Social Sustainability
Option D:	Economic Sustainability
10.	Which of the following is a characteristic of monopolistic competition?
Option A:	Few sellers.
Option B:	All of the above are characteristics of monopolistic competition.
Option C:	A differentiated product.
Option D:	Easy entry into and exit from the industry.
11.	Business people have the skills to solve?
Option A:	All Economic Problems
Option B:	All Social Problem
Option C:	Some Social Problem

Option D:	All Technical Problem
12.	Which of the following is Problem associated with Contractual Theory?
Option A:	Sellers cannot remove all their duties to buyers by getting them to agree to disclaimers of responsibility.
Option B:	Safety should not be provided through the market.
Option C:	Assumes consumer and seller meet as equals, but seller has more knowledge even then consumer must not rely on the seller.
Option D:	Assumes makers of products deal directly with consumers but they do not; however manufacturer's advertisements do form a kind of direct promise to consumers.
13.	The Globalization do not facilitate to
Option A:	Removal of control on movement of capital across borders
Option B:	Barriers to trade and investment
Option C:	Improvements in communication
Option D:	Immigration control
14.	What should be Market Approach to Consumer Protection?
Option A:	Claims safety is a commodity that should be mandated by government.
Option B:	In a market, sellers will provide safety if consumers demand it.
Option C:	In a market, the price of safety and the amount sellers provide will not be determined by the costs of providing it and the value consumers place on it
Option D:	Safety should not be provided through the market.
15.	Which of the following is not a Indicator of Discrimination?
Option A:	Proportion of rich and poor at all economic levels.
Option B:	Proportions of minorities and women at lowest economic levels
Option C:	Average benefits minorities and women receive compared to others
Option D:	Proportions of minorities and women at highest economic levels.
16.	Privacy with respect to a person's physical activities is called as?
Option A:	individual privacy
Option B:	personal privacy
Option C:	physical privacy
Option D:	psychological privacy
17.	What is Triple Bottom Line (TBL) ?
Option A:	An accounting tool that looks at the impact on people, planet and profits
Option B:	A management strategy which states all the attention should be on profits
Option C:	An accounting tool that looks at cost, profit and loss.
Option D:	A management strategy which focuses on corporate social responsibility
18.	Which of the following general principle is not followed by corporation while practicing CSR:
Option A:	Companies should support the inclusion of the principles of the India Global Compact
Option B:	Companies should indulge in free marker practices, rejecting any illegal or fraudulent practice and implement effective mechanisms
Option C:	Mangers are not responsible to follow and encourage ethical business practices among employees

Option D:	Companies should encourage and facilitate communication and dialogue with its shareholders, investors, employees, Customers and suppliers
19.	Distributing the benefits and burdens fairly among people is called as,
Option A:	Rule-utilitarianism
Option B:	Rights
Option C:	Justice
Option D:	Utilitarianism
20.	The moral argument for CSR is..
Option A:	The corporation is a creation of society and should therefore serve its needs.
Option B:	The corporation is a legal creation and therefore cannot be a moral agent
Option C:	Only Large corporations have the power or resources to address society's problems
Option D:	Business decisions will have social and environmental consequences which will be addressed by government.

Q2	Solve any Two Questions out of Three	10 marks each
A	How Ethics is an integral part of Business, Explain with Example	
B	What are the Ethics of pollution control.	
C	How can the rights of a consumer be defined in a due care theory? Explain with suitable example	

Q3	Solve any Two Questions out of Three	10 marks each
A	Explain in detail Corporate Social Responsibility and Small and Medium Enterprises (SMEs) in India.	
B	Why incorporate CSR into PPP for sustainable development?	
C	What is TBL? How it is work?	

University of Mumbai

Examination 2020 under cluster _4_ (Lead College: _PCE_)

Examinations Commencing from 23rd December 2020 to 6th January 2021 and from 7th January 2021 to 20th January 2021

Program: Computer Engineering

Curriculum Scheme: Rev 2016

Examination: BE Semester: VIII

Course Code: CSC801 and Course Name: Human Machine Interaction

Time: 2 hour

Max. Marks: 80

Q1.	Choose the correct option for following questions. All the Questions are compulsory and carry equal marks
1.	Conveying the rules by leaving visual clues is called as
Option A:	Feedback
Option B:	Constraints
Option C:	Mapping
Option D:	Affordances
2.	Mental Model deals with
Option A:	Partial Understanding
Option B:	Full Understanding
Option C:	Consistency
Option D:	Stability
3.	The study of mental illness of human beings is called
Option A:	Psychology
Option B:	Psychotherapy
Option C:	Psychopathology
Option D:	Pathology
4.	When you move the mouse towards the right pointer it will move towards right. This is the example of.....
Option A:	Feedback
Option B:	Constraints
Option C:	Mapping
Option D:	Affordances
5.	Which of the following does not belongs to phases of Goal directed design process
Option A:	Research
Option B:	Modelling
Option C:	Refinement
Option D:	Recognition
6.	Which of the following are the two main functions of GUI?
Option A:	Pointing and Selecting
Option B:	Selecting and Executing

Option C:	Selecting and Editing
Option D:	Pointing and Editing
7.	Collection of techniques and mechanisms to interact with tools is called as
Option A:	Action
Option B:	Graphics
Option C:	Icon
Option D:	Graphical User Interface
8.	What is full form of WYSIWYG
Option A:	What you see is what you get
Option B:	What you see is what you gain
Option C:	What you see is what you give
Option D:	What you sent is what you get
9.	Maximum Users are the users
Option A:	Beginner
Option B:	Intermediate
Option C:	Experts
Option D:	Toppers
10.mainly focuses on market survey, conducting user interviews and user observations.
Option A:	Research Phase
Option B:	Modelling Phase
Option C:	Support Phase
Option D:	Framework Phase
11.is considered as axial duplication.
Option A:	Symmetry
Option B:	Balance
Option C:	Consistency
Option D:	Regularity
12.	Principle of _____ states that the objects are close to each other will be perceived as one group.
Option A:	Proximity
Option B:	Similarity
Option C:	Closure
Option D:	Continuity
13.	The base layer of mobile ecosystem is
Option A:	Operators
Option B:	Networks
Option C:	Devices
Option D:	Platforms
14.	Which of the following is not an element of mobile design?
Option A:	Color
Option B:	Graphics

Option C:	Message
Option D:	Topology
15.	Theis the portion of the screen where the user performs a task.
Option A:	Command area
Option B:	Work area
Option C:	Spit box
Option D:	Size grip
16.is the first window which appears on screen when activity is started.
Option A:	Message Box
Option B:	Dialog Box
Option C:	Secondary Window
Option D:	Primary Window
17.	Abar is used to organize and provides access to actions.
Option A:	Status
Option B:	Scroll
Option C:	Menu
Option D:	Tool
18.is a graphical representation of a program or file, that when clicked on, will be run or opened.
Option A:	Icon
Option B:	Color
Option C:	Message
Option D:	Text
19.	Generally, all windows must have a title located in a ____ position at the top.
Option A:	Bottom
Option B:	Right aligned
Option C:	Centered
Option D:	Left aligned
20.	Color schemes haveimpact on human machine interaction.
Option A:	High
Option B:	Low
Option C:	No
Option D:	Zero

Q2. (20 Marks)	Solve any Two Questions out of Three	10 marks each
A	<i>Explain the seven stages of action and three levels of processing.</i>	
B	<i>Explain the goal directed design process in brief.</i>	
C	<i>Differentiate between GUI and Web UI.</i>	

Option 2

Q3. (20 Marks)	Solve any Two Questions out of Three	10 marks each
A	<i>What is statistical graphics? Explain different types of statistical graphics.</i>	
B	<i>What is Mobile 2.0? Explain the principles of Mobile 2.0.</i>	
C	<i>List and explain various types of windows.</i>	

University of Mumbai

Examination 2020 under cluster 4 (Lead College: PCE)

Examinations Commencing from 23rd December 2020 to 6th January 2021 and from 7th January 2021
to 20th January 2021

Program: Computer Engineering

Curriculum Scheme: Rev/2016/

Examination: BE Semester VIII

Course Code: CSC802 and Course Name: Distributed Computing

Time: 2 hour

Max. Marks: 80

Q1.	Choose the correct option for following questions. All the Questions are compulsory and carries equal marks. (2 marks each)
1.	The type of system in Distributed Computing is often _____
Option A:	Tightly Coupled System
Option B:	Loosely Coupled System
Option C:	Message Passing
Option D:	Data Parallelism
2.	What happens in a distributed computing when one of the site fails-
Option A:	The remaining sites can continue operating
Option B:	All the sites will stop working
Option C:	Directly connected sites will stop working
Option D:	All the running processes will be killed
3.	Which type of the transparency hides the failure and recovery of any resource?
Option A:	Relocation
Option B:	Replication
Option C:	Concurrency
Option D:	Failure
4.	The _____ communication is the form of communication that makes interaction possible among multiple processes running on different machines over the network.
Option A:	Intra-Process
Option B:	Inter-Process
Option C:	Task
Option D:	Process
5.	Which communication model uses the queuing model?

Option A:	MPI
Option B:	RPC
Option C:	MOM
Option D:	RMI
6.	An RMI skeleton is responsible for -
Option A:	Creating An Instance Of The Remote Object
Option B:	Exporting The Remote Object
Option C:	Binding The Instance Of The Remote Object To The RMI Registry
Option D:	Marshalling And Demarshalling
7.	In RPC, the parameters are _____.
Option A:	Pass By Parameter
Option B:	Pass By Reference
Option C:	Pass By Value
Option D:	Pass By Value And Pass By Reference
8.	The following is Physical Clock Synchronization Algorithm-
Option A:	Berkeley's
Option B:	Bully
Option C:	Lamport's Scalar Clock
Option D:	Vector Timestamp Ordering
9.	_____ is token based algorithm.
Option A:	Richart Agrawala
Option B:	Maekawa
Option C:	Lamport's
Option D:	Raymond Tree
10.	The time interval between critical region (CR) exit and new entry by any process is called
Option A:	System Throughput
Option B:	Message Complexity
Option C:	Synchronization Delay
Option D:	Response Time
11.	In distributed system, Election algorithms are based on the concept of-
Option A:	All processes are based on their IP address
Option B:	There is no priority number associated with any process
Option C:	Confidentiality
Option D:	A unique priority number is associated with each active process in system

12.	As per Lamport's clock synchronization algorithm, if timestamps of two events are same, then the events are _____
Option A:	S
Option B:	Non concurrent
Option C:	Synchronized
Option D:	Concurrent
13.	In _____ all the processes submitted by the users are distributed among the nodes of the system so as to equalize the workload among the nodes
Option A:	Virtualization
Option B:	Load Balancing
Option C:	Task Assignment
Option D:	Load sharing
14.	_____ determines when it will be necessary to transfer the process from one node to another
Option A:	Location policy
Option B:	Estimation policy
Option C:	Selection Policy
Option D:	Transfer Policy
15.	Migrating some resources, suspending the execution, migrating the process and then resuming is known as-
Option A:	Post Freezing
Option B:	Pre Transferring
Option C:	On demand Exchange
Option D:	Code migration
16.	What is not a desirable features of a good global scheduling algorithm?
Option A:	Flexible and scalable
Option B:	Ability to make dynamic scheduling decisions
Option C:	Apriori knowledge of process is required
Option D:	No apriori knowledge of process is required
17.	Which among these is a not a type of consistency models
Option A:	Sequential Consistency Model
Option B:	Processor Consistency Model
Option C:	Release Consistency Model
Option D:	Hybrid Model
18.	"The effect of a write operation by a process P on a data item X will always be seen by a successive read operation on X by the same process."
Option A:	Monotonic Reads

Option B:	Monotonic Writes
Option C:	Writes Follow Reads
Option D:	Read Your Writes
19.	Callback mechanism in AFS is used for managing-
Option A:	Backing up files
Option B:	RPC call to the server for file access
Option C:	Namespace of AFS
Option D:	File consistency among the local copies of the various clients using callback mechanism
20.	Which cache update policy copies every update to server at the same time?
Option A:	Write On Close
Option B:	Delayed Write
Option C:	Write Through
Option D:	Transaction Based

Q2	Solve any Two Questions out of Three.	(10 marks each)
A	Explain RPC system model in detail.	
B	Explain the distributed mutual algorithms for clock synchronization.	
C	Discuss the issues in designing load balancing algorithm	

Q3	Solve any Two Questions out of Three	(10 marks each)
A	Discuss the need of the co-ordinator. Also give any one algorithm for co-ordinator selection.	
B	Explain Data Centric and Client Centric Consistency models.	
C	List desirable features of a good distributed file system. Explain file sharing semantics of it.	

University of Mumbai
Examination 2020 under cluster _4_ (Lead College: __PCE__)

Program: Computer Engineering
Curriculum Scheme: Rev2016
Examination: BE Semester VIII

Course Code: DLO8011 and Course Name: High Performance Computing

Time: 2 hour

Max. Marks: 80

Q1.	Choose the correct option for following questions. All the Questions are compulsory and carry equal marks
1.	Execution of several activities at the same time is known as
Option A:	Processing
Option B:	parallel processing
Option C:	serial processing
Option D:	Multitasking
2.	A general MIMD configuration usually called
Option A:	Multiprocessor
Option B:	Vector processor
Option C:	Array processor
Option D:	Data processor
3.	Handler's classification uses the following three pairs of integers to describe a computer: Computer = (p * p', a * a', b * b') So here what is a meaning of P'
Option A:	Number of PCUs that can be pipelined
Option B:	Number of bits that can be pipelined
Option C:	Number of segments can be pipelined
Option D:	Number of bytes that can be pipelined
4.	The situation wherein the data of operands are not available is called _____
Option A:	Data hazard
Option B:	Stock
Option C:	Deadlock
Option D:	Structural hazard
5.	A processor without structural Hazards is
Option A:	Faster
Option B:	Slower
Option C:	Have a longer clock cycle
Option D:	Have a larger clock rate
6.	Control hazards occurs due to _____
Option A:	ADD instruction
Option B:	MUL instruction
Option C:	DIV instruction
Option D:	Branch instruction

7.	A _____processor is a microprocessor design for exploiting multiple instructions in one clock cycle, thus establishing an instruction-level parallelism in processors.
Option A:	Superscalar
Option B:	Data
Option C:	Grid
Option D:	Uniform
8.	We anticipate which pages we are going to browse ahead of time and issue requests for them in advance are known as _____.
Option A:	Prefetching
Option B:	Multithreading
Option C:	Multitasking
Option D:	Latency
9.	_____computers require more hardware.
Option A:	SISD
Option B:	SIMD
Option C:	MIMD
Option D:	MISD
10.	Static networks consist of point-to-point communication links among processing nodes and are also referred to as _____ networks
Option A:	Indirect
Option B:	Direct
Option C:	Full
Option D:	Hierarchical
11.	Thread is dispatch able unit of _____.
Option A:	Program
Option B:	Process
Option C:	Time
Option D:	Work
12.	_____ is a method for inducing concurrency in problems that can be solved using the divide-and-conquer strategy.
Option A:	Data decomposition
Option B:	Recursive decomposition
Option C:	Speculative decomposition
Option D:	Exploratory decomposition
13.	The number and size of tasks into which a problem is decomposed determines the _____ of the decomposition.
Option A:	Concurrency
Option B:	Task dependency
Option C:	Granularity
Option D:	Efficiency
14.	Which of the following parallel algorithm models is applicable to web server?
Option A:	Task graph

Option B:	Work pool
Option C:	Master-slave
Option D:	Pipeline
15.	Parallelism can be used to increase the (parallel) size of the problem is applicable in _____.
Option A:	Amdahl's Law
Option B:	Newton's Law
Option C:	Gustafson-Barsis's Law
Option D:	Pascal's Law
16.	Which speedup could be achieved according to Amdahl's law for infinite number of processors if 5% of a program is sequential and the remaining part is ideally parallel?
Option A:	Infinite speedup
Option B:	5
Option C:	20
Option D:	50
17.	The average time required to reach a storage location in memory and obtained its content is called
Option A:	Latency time
Option B:	Access time
Option C:	Turnaround time
Option D:	Response time
18.	Which MPI function is used to determine the label of calling process?
Option A:	MPI_Init
Option B:	MPI_Comm_world
Option C:	MPI_Comm_size
Option D:	MPI_Comm_rank
19.	Message passing system allows processes to _____
Option A:	communicate with one another without resorting to shared data
Option B:	communicate with one another by resorting to shared data
Option C:	share data
Option D:	name the recipient or sender of the message
20.	In message passing a process receives information by executing the _____
Option A:	Send
Option B:	Send Primitive
Option C:	Receive
Option D:	Receive Primitive

Q2 (10 Marks Each)	Solve any Two Questions out of Three
A	Write a MPI program for Prime Number Generation.
B	Explain Speed up, Efficiency and scalability with suitable example.
C	Write Short note on SIMD matrix multiplication.

Q3. (10 Marks Each)	Solve any Two Questions out of Three
A	Explain the various criteria for classification of parallel computer. Explain the Flynn's classification in details.
B	Explain the Decomposition techniques in parallel computing.
C	State and explain Amdahl's law. Describe the relevance of Amdahl's law in HPC?

University of Mumbai

Examination 2020 under cluster 4 (Lead College: PCE)

Examinations Commencing from 23rd December 2020 to 6th January 2021 and from 7th January 2021 to 20th January 2021

Program: Computer Engineering

Curriculum Scheme: Rev 2016

Examination: BE Semester: VIII

Course Code: DLO8012 and Course Name: Natural Language Processing

Time: 2 hour

Max. Marks: 80

Q1.	Choose the correct option for following questions. All the Questions are compulsory and carry equal marks
1.	Which of the following is component of NLP?
Option A:	Natural speech recognition
Option B:	Natural language understanding
Option C:	Natural language summarization
Option D:	Natural language code
2.	What is morpheme?
Option A:	Set of words with grammar.
Option B:	Smallest linguistic unit with grammatical function.
Option C:	Set of rules.
Option D:	Smallest sentence with syntax.
3.	Context Free Grammar(CFG) does not consist of _____
Option A:	Non-Terminal
Option B:	Terminal
Option C:	Rules
Option D:	End symbol
4.	The term phonology is deal with _____
Option A:	Interpretation of speech sound
Option B:	study of the way words are built up
Option C:	study of formal relationships between words
Option D:	study of the meaning of words
5.	Parts of speech can be divided into two broad supercategories _____
Option A:	Sub class and child class
Option B:	Sentence class and character class
Option C:	Closed class and open class
Option D:	Parent class and derived class
6.	Which of the following is the example of surface segmentation?
Option A:	Achievability = achievabil + ity
Option B:	Achievability = achiev + ability
Option C:	Achievability = Achieve + able + ity
Option D:	Achievability = achiev + abil + ity

7.	Which of the following is not a stage of NLP?
Option A:	Morphological and lexical analysis
Option B:	Syntax analysis
Option C:	Discourse integration
Option D:	Code analysis
8.	Syntax-driven semantic analysis is based on following,
Option A:	Principle of compositionality
Option B:	Principle of integrity
Option C:	Principle of comparability
Option D:	Principle of tagging
9.	Which of the following is example of ambiguity in natural language?
Option A:	The man eat apple
Option B:	Bird is swimming in pool
Option C:	There was not a single man at the party
Option D:	The chicken dish is ready to eat
10.	What is Word Sense Disambiguation (WSD)?
Option A:	The task of selecting the correct sense for a sentence
Option B:	The task of defining correct meaning
Option C:	The task of arranging correct words in sentence.
Option D:	The task of selecting the correct sense for a word
11.	How given sentence represented using Bigram model? "I want to eat Indian food"
Option A:	{(I, want), (want, to), (to, eat), (eat, Indian),(Indian, food)}
Option B:	{(I), (want, to), (to, eat), (eat, Indian),(Indian, food),(food, I)}
Option C:	{(I, want, to), (want, to, eat), (to, eat, Indian), (eat, Indian, food)}
Option D:	{(I), (want), (to), (eat), (Indian), (food)}
12.	Which of the following is not a Information Retrieval type?
Option A:	Text
Option B:	Image
Option C:	Speech
Option D:	Structured Information
13.	"Would you please turn the volume a little higher?" is a example of
Option A:	Yes-No question
Option B:	Declarative sentence
Option C:	Wh-Subject-question
Option D:	Imperative sentence
14.	The word "Putting" is handle and clean up by which stemming rule? "Putting → Put"
Option A:	{(X) -ing → ε} and {-CC → C}
Option B:	{(X) -eed → -ee} and {-at → -ate}
Option C:	{(X) -ing → -ing}
Option D:	{(X) -C1VC2 → C1VC2e}

15.	Which of the following is not an open class?
Option A:	Noun
Option B:	Preposition
Option C:	Verbs
Option D:	Adverb
16.	Which of the following is HMM tagging?
Option A:	Rule base POS tagging
Option B:	Transformation based tagging
Option C:	Brill tagging
Option D:	Stochastic POS tagging
17.	Which of the following is a correct rule for “Yes-No-Question”?
Option A:	$S \rightarrow NP VP$
Option B:	$S \rightarrow VP$
Option C:	$S \rightarrow Aux NP VP$
Option D:	$S \rightarrow WhWord NP VP$
18.	A natural language expression used to perform reference is called _____
Option A:	Referent
Option B:	Anaphora
Option C:	Context
Option D:	Referring expression
19.	Which of the following is not true about Question-Answer (QA) System?
Option A:	Natural extension of Information Retrieval
Option B:	A QA system receives a query expressed in Natural Language
Option C:	Tries to provide a document containing the answer
Option D:	Provides answer as a fact
20.	Which of the following is not a type of referring expression?
Option A:	Indefinite noun phrases
Option B:	definite noun phrases
Option C:	Inferrables
Option D:	Demonstratives

Q2. (20 Marks)	Solve any Four out of Six 5 marks each
A	Explain stages in NLP
B	Define morphology. Explain types of morphology.
C	<p>Given a mini-corpus of three sentences</p> <p style="text-align: center;"><s> I am Sam </s> <s> Sam I am </s> <s> I do not like green eggs and ham </s></p> <p>Calculate following bigram probabilities from this corpus, $P(I <s>)$, $P(Sam <s>)$, $P(am I)$, $P(Sam am)$, $P(do I)$</p>
D	Explain rule based tagging.
E	Write a short note on Word Sense Disambiguation.

F	What is Named-Entity recognition? Define its types.
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Q3. (20 Marks)	Solve any Four out of Six. 5 marks each
A	What are the challenges of NLP?
B	Explain finite state transducer(FST).
C	Explain agreement and coordination.
D	Explain following Relations among lexemes & their senses, Homonymy, Synonymy, Hyponymy with example
E	What are the five types of referring expression? Explain with example
F	Explain Information retrieval.

University of Mumbai

Examination 2020 under cluster 4 (Lead College: PCE)

Examinations Commencing from 23rd December 2020 to 6th January 2021 and from 7th January 2021 to 20th January 2021

Program: **Computer Engineering**

Curriculum Scheme: Rev 2016

Examination: BE Semester - VIII

Course Code: DLO8013 and Course Name: Adhoc Wireless Network

Time: 2 hour

Max. Marks: 80

Q1.	Choose the correct option for following questions. All the Questions are compulsory and carry equal marks
1.	What is the type of network in which topology change from time to time
Option A:	Wi-Fi
Option B:	Cell Network
Option C:	LAN
Option D:	MANET
2.	What is WPA?
Option A:	Wi-Fi Protected Access
Option B:	Wired Protected Access
Option C:	wired process access
Option D:	Wi-Fi Process Access
3.	Another name for the Wireless Ethernet 802.11a is-
Option A:	Wi-Fi
Option B:	Wi-Fi4
Option C:	Wi-Fi5
Option D:	Wi-Fi6
4.	Which of the following is not the main part of basic cellular system.
Option A:	A mobile unit
Option B:	A cell site
Option C:	A mobile Telephone Switching Office
Option D:	Ground level waves
5.	Which of the following is not an issue in designing MAC protocol for ad hoc wireless network?
Option A:	Quality of service support
Option B:	Bandwidth efficiency
Option C:	Hidden and exposed terminal problems
Option D:	The battery utilisation is increased implementing sleep schedules
6.	----- occurs when both nodes transmit packets at the same time without knowing about the transmission of each other
Option A:	Intersection

Option B:	Collision
Option C:	Synchronization
Option D:	Error
7.	MACA and RTMAC are the types of which protocol?
Option A:	Sender initiated protocol
Option B:	Multichannel protocol
Option C:	Asynchronous protocol
Option D:	Receiver initiated protocol
8.	CSMA does not overcome the ----- problem.
Option A:	No synchronization
Option B:	Quality of service support
Option C:	Error-prone
Option D:	Hidden and exposed terminal
9.	A MAC protocol should be designed by taking into account an important factor. What factor it is ?
Option A:	Broadcast nature of the radio channel
Option B:	Central coordination
Option C:	Synchronization
Option D:	QoS support
10.	A hybrid routing protocol that effectively combines the best qualities of proactive and reactive routing protocols.
Option A:	Adhoc on demand distance vector routing protocol
Option B:	Temporally ordered routing algorithm
Option C:	Zone routing protocol
Option D:	Dynamic source routing Protocol
11.	In Associativity-based routing Protocol, each node in the network maintains the count of its neighbor beacons. It categorizes links as....
Option A:	Direct and indirect links
Option B:	Stable and Unstable links
Option C:	Active and reactive links
Option D:	Wired and Wireless links
12.	_____ is a table-driven, proactive routing protocol developed for MANETs
Option A:	Fisheye State Routing (FSR)
Option B:	Dynamic Source Routing Protocol (DSR)
Option C:	Optimized Link State Routing (OLSR)
Option D:	Zone Routing Protocol (ZRP)
13.	What layer in the TCP/IP stack is equivalent to the Transport layer of the OSI model?
Option A:	Application
Option B:	Host to host
Option C:	Internet
Option D:	Network Access

14.	Which of the following protocols uses both TCP and UDP
Option A:	SMTP
Option B:	Telnet
Option C:	FTP
Option D:	DNS
15.	Length of Port address in TCP/IP is ____
Option A:	4bit long
Option B:	16bit long
Option C:	32bit long
Option D:	8bit long
16.	Applications of ad hoc networks used for security purpose:
Option A:	Building
Option B:	Fixtures
Option C:	Military Units
Option D:	Nodes of network
17.	When there is a lack of a central point of control.” Which type of Wireless network threat would you classify this under?
Option A:	Man in the middle attack
Option B:	Identity Theft
Option C:	Ad Hoc Networks
Option D:	Non-Traditional Network
18.	Spoofing is usually the way a nasty actor gains access so as to execute a bigger cyber attack like a complicated persistent threat or
Option A:	Man in the middle attack
Option B:	Identity Theft
Option C:	Ad Hoc Networks
Option D:	Non-Traditional Network
19.	Which component of VANET facilitates both V2V (Vehicle to Vehicle) and V2I (Vehicle to Infrastructure) communications:
Option A:	On-Board Units (OBUs)
Option B:	Road Side Units (RSUs)
Option C:	Application Units (AUs)
Option D:	Intelligent Transportation Systems (ITS)
20.	Wireless Access for the Vehicular Environment (WAVE) is a subset of:
Option A:	Medium Range Communications
Option B:	Long Range Communications
Option C:	Dedicated Short Range Communications
Option D:	Coverage Range Communications

Q2. (20 Marks)	Solve any Four out of Six	5 marks each
A	Give the difference between cellular networks and adhoc wireless networks.	
B	Write short note on Distributed Packet Reservation Multiple access (D-PRMA) Protocol.	
C	What is hidden terminal problem? Explain with an example	
D	Write issues and challenges faced in providing QoS.	
E	Explain security aware adhoc routing.	
F	Explain components of WAVE (Wireless Access for the Vehicular Environment).	

Q3. (20 Marks)	Solve any Two Questions out of Three	10 marks each
A	What are the main issues that need to be addressed while designing MAC protocol for adhoc networks.	
B	How DSDV protocol provides solution to address the problems of looping and count-to-infinity? Explain with an example.	
C	What do you mean by Quality of service (QoS) provisioning? Explain with example QoS routing in adhoc wireless networks.	