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# Brain Teaser Academy

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JAMMU & KASHMIR BOARD OF TECHNICAL EDUC TION M.I-22 Act: Installation, Maintenance & Troubleshooting of Computer Networks Branch: Computer Engl Semester: 6th Scheme: New M. Marks: 100 Instructions: 1. Attempt any Five Questions. 2. Figure to the right Indicate marks. Explain bruefly prevent e and corrective maintenance? What do you understand by site Q1. preparal on? Q2. Explain: D. Switches [4:5] C. Bridge A. LAN Failure B. Hub Describe power supply requirements of computer and peripherals? What do you Q3. [20] understand by "grounding shielding"? Explant in detail the 2-Tier client server architecture? Q4. [20] What is Squid Proxy? Explain its functioning? Q5. [20] What do you understand by DNS? DOMAIN, Workgroup? Q6. Q7. A. What do you understand by access point configuration? Briefly explain white an agent and emv. com [10x2] В. Q8. Explain: A Troubleshooting of Routers [10x2] B. Router configuration Explain different types of addressing used in computer network? Q9. Explain with the help of a Mitable diagram, TCP/IP model of networks Q10.

# MJ-22 JAMMU & KASHMIR BOARD OF TECHNICAL EDUCATION

Subject: Artificial Intelligence Semester: 6th Scheme: New Branch: Computer Engg. M. Marks: 100 Time: 03 Hours Instructions: 1. Attempt any Five Questions. 2. Figures to the right indicate marks. What do you understand by artificial intelligence? List few applications of artificial Intelligence in games? [20] Briefly explain architecture of a typical expert system with the help of a suitable diagram? What do you understand by State Space Representation? Explain the importance of "Search" in State Space Representation? [20] Mention some of the heuristic search techniques? Explain any one of the heuristic search technique with the help of a suitable example? [20] What are the different data types in PROLOG? Explain briefly? [20] What is an expert system? Explain its characteristics? Q7.(A) What is Knowledge Representation in Al? Name the techniques involved it. \* cwled ( Representation? What do you understand by semantic network with examples? [20] What is distributed AI? Mention few examples of AI in our everyday lives? [20] [20] Explain the role of Al in the fight against Covid-19? QO: Explain briefly the evolution of AI & list few issues of AI in games? [20]

### MJ-22 JAMMU & KASHMIR BOARD OF TECHNICAL EDUCATION Semester: 6th Branch: Computer Engg. Subject: Network Security (Elective-II) Time: 03 Hours M. Marks: 100 - Scheme: New Instructions: ttempt any Five Questions. eigures to the right indicate marks. What do you understand by Network Security? Difference between internal & external [20] \_attacks in security? 11000 17 Q2. State the advantages of cyber laws in internet security? Why do we need to secure a computer Network? Q3. Explain: A. Encryption B. Decryption C. Symmetric Key [4x5] D. Asymmetric Key What do you understand by Cryptography? Explain Piracy, Copyrights, IPRS? [20] [20] Q5. Explain briefly SSL? What do you understand by hashing? Q6. Explain: A. Active Attack B. Passive Attack C. Denial of Service [4x5] D. Phishing Attacks [20] What is a firewall? Explain the types of firewalls? Q7 Briefly explain Intrusion Detection system? Mention some of the limitations of Int 08 Detection systems? Explain the steps involved in configuring a VPN Network? Define Vulnerability? [20 Define Disaster? What are the categories of Disaster? Discuss? Q10.

## J & K BOARD OF TECHNICAL EDUCATION

Seme.	ster: 5 <sup>th</sup>	Branch:	Computer Engineering
Subje	ct: Advance Data Base Managen	ent System	Scheme: New
Time		ion:ND22	M.M.: 100
	The blood during a series and	A THE REAL PROPERTY.	BAY SIN MARY MARK AND
Note:	- Attempt any five Questions. Al	l Questions carry equa	l marks.
Q1.	What do you understand by DA		
	of Normalization?	TA maepenachee. Dir	(20)
Q2.	What do you understand by Dat	a Models? Explain?	(20)
Q3.	What do you understand by I	Distributed databases?	What are the various
	types of distributed database sy		(20)
Q4.	Explain:		
	a) Data definition language	b) Scalar functions w	rith respect to DDL
	c) Null values w.r.t DDL	d) Aggregate functio	
Q5.	What do you understand by Da		
	of a join operator with the help	of an example?	(20)
Q6_	Explain the concept of Triggers?		(20)
Q7.	What do you understand by	e Indexes? What are	cthenadvantages and
Q8.	disadvarrages of views?		(20)
	a) Try and Catch Statements		
Q9.	Explain:	b) II Statement & W	hile Statement (20)
	a) Object Definition Language.	h) Object Ou	ery language
	c) Object Relational Systems	d) SQL3	
210.	What do you understand by ba		(20)
	SQL server? Also explain steps to	singtall SOL Samera	
	a de la contra la compania sceps to	install SQL Server?	(20)

IVIJ23

Semester:-6th (New)

Branch:- COMPUTER ENGINEERING

Subject: ARTIFICIAL INTELLIGENCE

Max Marks:-100

Time: 03 Hours

Note:- Attempt any five Questions.  Other Define Artificial Intelligence. Explain the history and application areas of Al	(15)	~0
Explain State Space representation of any Al problem.	(05)	
OZIAL Explain the Minimax search with example.	(12)	
(by volain the importance of Heuristic Search in Al problem solving.	(08)	100
O3(a) Define expert systems. What are the components of an expert system? Ex	(12)	
What are the various characteristics of an Expert System?	(80)	20
and beautodop in Al What are the william		
busined representation?	(12)	
Describe the different types of users and their role in an expert system.	(08)	
Define knowledge representation. What are the various knowledge		
Janua Antabon methods? Explain		
shand explain the components of a Robotic System	(10)	
WWW Drainteaseracademy com	(10)	
(77(a) What are the various Robots developed using artificial intelligence technical	ques?	
	(12)	
(b) What are the various applications of Expert systems? Explain	(10)	
- at a star stars of a PROLOG program		
(b) With the nelp of an example, explain how to represent roles, facts on a	(10)	
CONExplain data types in PROLOG	(10)	
#IF volum the term distributed artificial sizelligence		20
the sport notes or any two		
m Predicate Logic b) Natural language understanding committee playing		
Amantic Networks		

### J AND K BOARD OF TECHNICAL EDUCATION

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MJ23

ROLL No: 64483

Semester:-6 <sup>th</sup> (New)  School Branch:- COMPUTER ENGINEERIN	IG /IT
Subject:- VISUAL PROGRAMINING USING .NET  Max Marks:-100 Time: 03 Hours	
Note:- Attempt any five Questions. All Questions carry equal marks.	
Q1 20 What is VB .Net? Explain the main features of VB .Net.	[5,5]
Describe the five different types of variables used in VB .Net with examples.	[2×5]
Q2: Define	
Common Language Runtime(CLR) (Common Type System (CTS)	
Common Language Specifications (CLS) (A) Microsoft Intermediate Language (MSIL)	[4x5]
Q3: a) What is an IDE in the context of VB .Net?	[10]
b) List and briefly explain the key components of the Visual Studio IDE for VB .Net develop	ment.
www.brainteaseracademy.com	[10]
Q4: a) Explain Sub Procedure, function in context of VB .Net	[10]
b) Explain difference between ByVal and ByRef with the help of example.	[10]
a) Discuss the importance of exception handling in VB .Net.	
Explain the try-catch-finally block and its role in exception handling with an example.	[10]
Q6: a) What are control structures in VB .Net?	[10]
<ul> <li>b) Compare and contrast the If-Then-Else and Select Case statements in VB .Net with suita examples.</li> </ul>	ble [10]
Q7:  Explain the concept of database connectivity in VB .Net.	[10]
b) Discuss the steps involved in connecting to a database and performing select query.	[10]
Q8. a) What are event handlers in VB .Net?	[10]
b) List four event handlers and four property of any three controls in VB .Net and explain use them.	how to [10]
09: Explain what is Crystal Reports and how to connect them to a database?	[10]
b) Explain Request and response object in Asp dot net and their uses.	[10]
Q10: Explain web service and list steps to create a web service	[10]
Q10: Explain web served and server architecture	[10]





## **PDF Reader**





Class: 6TH Semester

Branch: Elect/ Mech/ Auto/ WT/ T&T/ FT/ E&C/ ME/ Comp/ IT/ Arch/ I&C/ GT

Subject: Basics of Management

Time: 3 Hours

M. Marks: 100

Scheme: New

Note: Attempt any five questions. All questions carry equal marks.

1	Define the term Management. State its features. How does Management differ from Administration?	20
2(8	) Describe the organization structure suitable for large sized organization.	10
2(b	Explain the methods of improving motivation in an organization.	10
3	Explain in detail the code of professional ethics.	20
4	What is Leadership? Discuss the need and importance of leadership in management of business organization.	20
5 <b>V</b>	/ befine an explain the selection response of the selection response o	20
6(a)	Define Preventive maintenance. What are the objectives of preventive maintenance?	10
6(b)	Explain briefly the terms: patents and copyrights	10
7	"Success or failure of a consumer is directly related to Pricing Decision."  Comment. Explain nature and importance of cost- benefit analysis.	20
3	Explain in detail Excise duty and custom duty	20
	Explain the need and importance of Customer Relationship Management	20
	Explain in detail the concept of Quality Assurance.	20

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ROLL No:

Semester:-6th (New)

Branch:- INFORMATION TECHNOLOGY

Subject:- Advanced Database Management Systems

Max Marks:-100

Time: 03 Hours

### ATTEMPT ANY FIVE QUESTIONS, ALL QUESTINS CARRY EQUAL MARK

- Q1. What do you mean by data models. Explain various data models. (20 marks)
- Q2. What is Database Normalization? Explain first, second and third normal forms with the help of suitable examples. (20 marks)
- Q3. What is distributed database, describe advantages and disadvantages of distributed databases. (20 marks)
- Q4. Explain various types of data fragmentation techniques with suitable examples.
  (20 marks)
- Q5. (A)Explain the concept of object identifier (OID) in ODBMS. (10 marks)

  (B) What is a type constructor, what are various type constructors in ODBMS. (10 marks)
- Write a short note on SQL management studio? Write down various steps involved in installing the swill we Drainteaseracademy.com (20 marks)
- Q7. (A) Explain various DDL commands in SQL with the help of suitable examples.
  (10 marks)
  - (B) What are aggregate and scalar functions in SQL with the help of examples, what is the effect of null values on the outcome of aggregate functions. (10 marks)
- Q8. What do you understand by Data Manipulation Language. Explain insert, update delete and select statements with the help of suitable examples. (20 marks)
- (A)What are triggers? Differentiate between before and after trigger with example.

  (10 marks)

(B) What are views? How can it be created? Explain with the help of example.

(10 marks)

xplain the use of following in SQL:

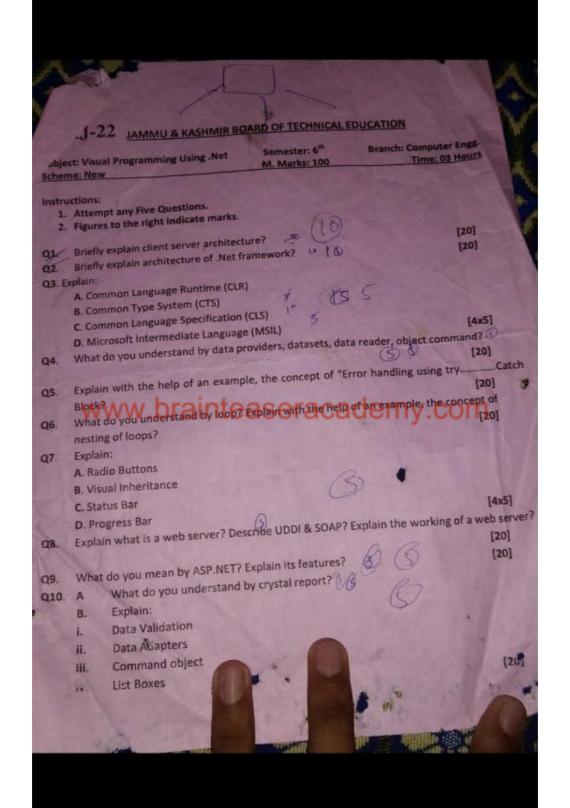
A)IF statement

(B) While Statement

) try and catch statements

(D) Stored Procedures

(4x5 mar



#### J & K BOARD OF TECHNICAL EDUCATION

ROLL No:64486

(12)

MJ23

Semester:-6" (New)

Subject: ARTIFICIAL INTELLIGENCE

Max Marks::100

Branch: COMPUTER ENGINEERING

Time: 03 Hours

Note:- Attempt any five Questions.

O'Let Define Artificial Intelligence. Explain the teatory and application areas of At (15)

persplain State Space representation of any Al problem

OZIAT Explain the Minimax search with example.

Explain the importance of Heuristic Search in Al problem solving (05) 40

Define expert systems. What are the components of an expert system? Explain (12)

What are the various characteristics of an Expen System? (08)

Evolute information and knowledge in Al. What are the various institute in knowledge representation?

at Describe the different types of users and tried role to an expert system.

Define knowledge representation. What are the various knowledge

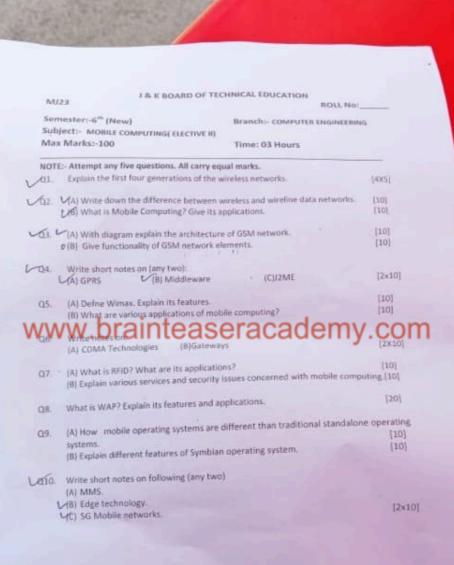
O7iai What are the various Robots developed us (12) (80)

(b) What are the vanous applications of Expert systems? Explain (10) Q8(a)Explain the structure of a PROLOG program

(b)With the nelp of an example, explain how to represent rules, facts and goals. (10)

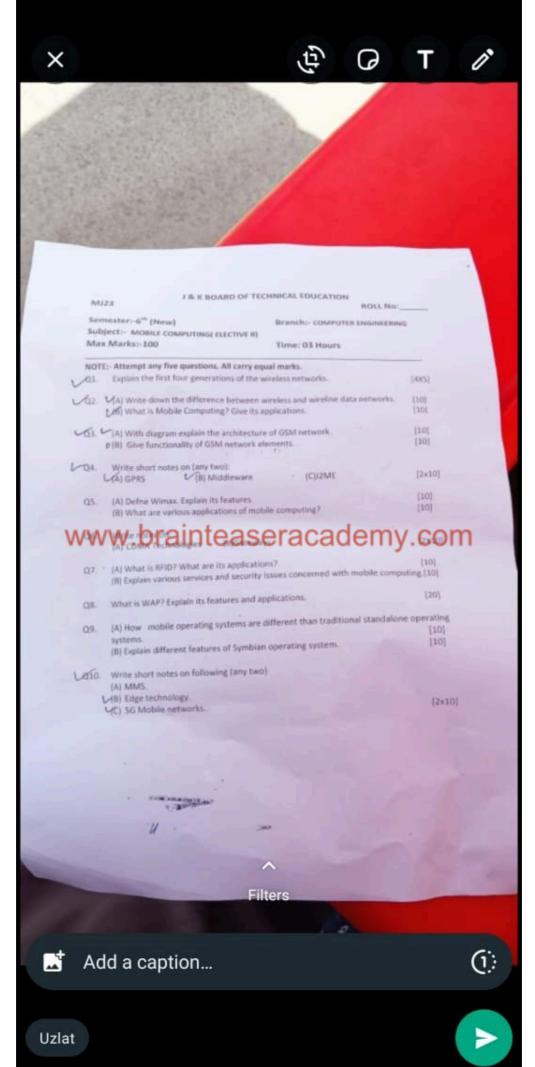
OgniExplain data types in PROLOG

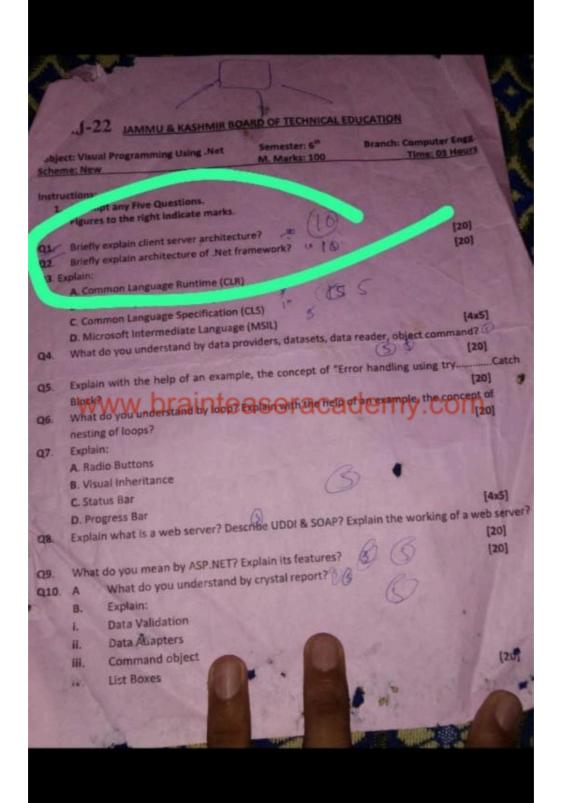
Frolim the form distributed artificial a telligence 125104201.99

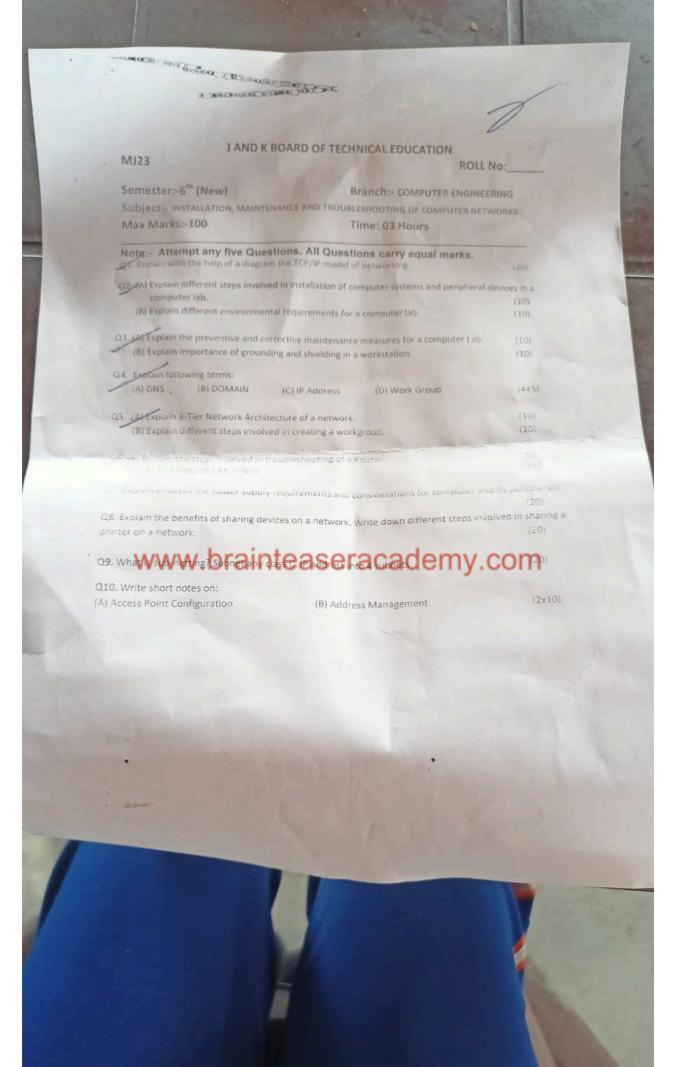


#### JAMMU & KASHMIR BOARD OF TECHNICAL EDUCATION

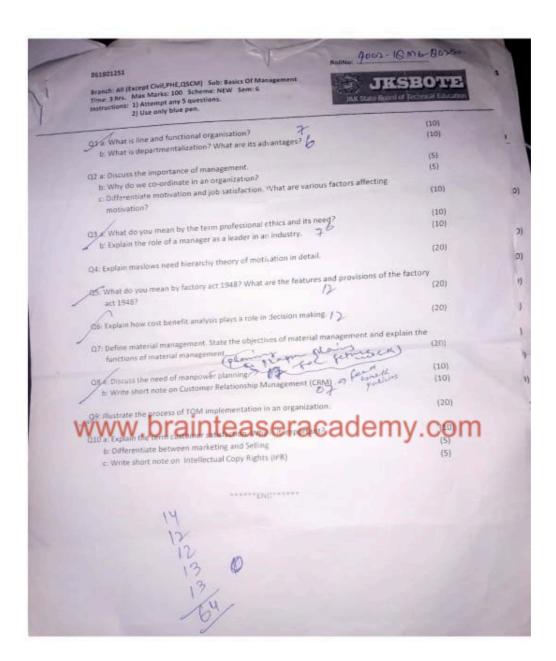
Semester: 6th **Branch: Computer Engineering** Subject: Artificial Intelligence Scheme: New Session: ND22B6SCE M.M.: 100 Note:- Attempt any five Questions. All Questions carry equal marks. Define the term Artificial Intelligence. What are the application areas of artificial intelligence? What are heuristic search techniques? Using example, explain best first Explain expert systems. State and explain the various components of an Q3. expert system? (20) Q4. What is state space representation? Explain with an example? (20) Q5. What is knowledge representation? Explain the knowledge representation Q6. Explain the role and importance of expert knowledge engineer and user in (20)WWW. prayateaseracademy. (20) Explain the concept of Distributed Artificial Intelligence. What are its What are the features of PROLOG? With the help of an example explain the structure of PROLOG program? Q10. What are the current State of the art developments in Artificial Intelligence? (20)







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#### J & K BOARD OF TECHNICAL EDUCATION

**MJ23** 

**ROLL No:** 

Semester:-6th (New)

**Branch:- COMPUTER ENGINEERING** 

Subject:- ARTIFICIAL INTELLIGENCE

Note:- Attempt any five Questions

Max Marks:-100

Time: 03 Hours

The state of the s		
Q1. a) What is State Space Representation. R	Represent Water Jug problem usin	ng State Space Represe

Q1. a) What is State Space Representat	tion. Represent Water Jug problem using State Space R	epresentation
b) Write short note on:		(10) (10)
i) MinMax Search	ii) Natural Language Understanding	
92. a) What is Artificial Intelligence. Ex b) Explain in brief history of Artificia	plain the various application of Artificial Intelligence? al Intelligence?	(10)
Q3. a) What is Hill Climbing Search .Dis b) Differentiate between Breadth F	cuss the various problem of Hill Climbing ? First Search (BFS) and Depth First Search (DFS)?	(10) (10)
<ul> <li>a) What is an Expert System. Explain b) Explain the various steps to built</li> </ul>	in the Architecture of an Expert System? t an Expert System?	(10) **
Q5. What is Knowledge Representation	Explain the various techniques of knowledge Repres	sentation?
		(20)

- Q6. Convert the following statements into logical Representation:
- 1. If I will go to Australia, then I will earn more money. 2. He goes to play a match if and only if it does not rain.
- 3. He is poor but honest.

1. Facts

- 4. Every man respects his parent.

2. Rules

- 5. Not all students like both Mathematics and Science.
  6. Some port playericker rainteaseracademy.com
- 7. We will leave whenever he comes.

8. Not every animal dislikes noney.	(27)
Q7. a) What is Prolog. Explain the various datatypes of Prolog?	(10)
b) Write short note on	(10)

Q8. a) What is Robotics. Explain the various components of Robotics System?	(10)
the dealers of the second second	(10)

3. Atoms

The state of the s	
Q9. a) Explain the various current developments in Artificial Intelligence?	(10)
Co. a) capital are turious content deteroprients in the	(10)

b) birelemate between knowledge and information.	
and the state of an example?	(10)

Q10. a) What is Heuristic Search. Explain A* Search with the help of an example?	(10)
Q10. a) What is neuristic search. Explain A Search with the help of all	(10)
h) Euplain the various issues of Artificial Intelligence?	(10)

RND225SCE

#### J & K BOARD OF TECHNICAL EDUCATION

Semester: 5th **Branch: Computer Engineering** Subject: Advance Data Base Management System Scheme: New Time: 3 Hrs M.M.: 100 Note: Attempt any five Questions. All Questions carry equal marks. What do you understand by DATA Independence? Briefly explain the concept of Normalization? What do you understand by Data Models? Explain? (20) 02. What do you understand by Distributed databases? What are the various Q3. types of distributed database systems? 04. Explain: b) Scalar functions with respect to DDL a) Data definition language d) Aggregate functions w.r.t DDL (20) c) Null values w.r.t DDL What do you understand by Data Manipulation language? Explain the working Q5. of a join operator with the help of an example? (20)(20) Explain the concept of Triggers? Q6. What do you understand by Indexes? What are the advantages and Q7. (20) disadvantages of views? OS. Explain the terms given below with the help of examples: a) Try and Catch Statements b) If Statement & While Statement (20) Q9. Explain: a) objewww.brainteaseracademy.com c) Object Relational Systems d) SQL3 Q10. What do you understand by backup & recovery with respect of installation of SQL server? Also explain steps to install SQL Server? (20)

RND225SCE

#### J & K BOARD OF TECHNICAL EDUCATION

Semester: 5th **Branch: Computer Engineering** Subject: Advance Data Base Management System Scheme: New Time: 3 Hrs M.M.: 100 Note: Attempt any five Questions. All Questions carry equal marks. What do you understand by DATA Independence? Briefly explain the concept of Normalization? What do you understand by Data Models? Explain? (20) What do you understand by Distributed databases? What are the various Q3: types of distributed database systems? 04. Explain: b) Scalar functions with respect to DDL a) Data definition language d) Aggregate functions w.r.t DDL (20) c) Null values w.r.t DDL What do you understand by Data Manipulation language? Explain the working Q5. of a join operator with the help of an example? (20)(20) Explain the concept of Triggers? Q6. What do you understand by Indexes? What are the advantages and Q7. (20) disadvantages of views? OB. Explain the terms given below with the help of examples: a) Try and Catch Statements b) If Statement & While Statement (20) Explain: Q9. a popular de la company de la c) Object Relational Systems d) SQL3 What do you understand by backup & recovery with respect of installation of SQL server? Also explain steps to install SQL Server? (20)

#### 8618010234

Branch: Computer Sub: Installation, Maintenanc≅ and Troubleshooting of Computer Networks

Time: 3 hrs. Max Marks: 100 Scheme: New Sem: 6

Instructions: 1) Attempt any Five questions

2) Use only blue pen.



Q1: How are Sites for Computer Systems/Labs Prepared and designed. Also write in deta preventive maintenance of computer systems.	il about the (20)
Q2: What is troubleshooting? Discuss the various steps involved in troubleshooting?	(20)
b What are Bridges explain the advantages and diadvantages of Network Bridges	(10) (10)
Olfferentiate between:	
Domain and workgroup     Switch and Hub.	
b) Explain the different types of addressing used in computer network?	(10)
Explain in detail the TCP/IP model of networking.	(20)
Q6 a) What are I/O channels .Explain the different types of I/O channels? b) Explain the working of DNS WWW.Drainteaseracademy.co	om <sup>(10)</sup>
Q7: What is Squid Proxy? Explain in detail its functioning	
OBST Explain 2-tier and 3-tier network architecture ?  b) Write short note on a) VSAT b) PSTN c) Leased line.	(10) (10)
Q9 a/What is Sub-netting? What is the need of sub-netting the network .Explain Subnet ma	sk in detail.
b) What are routers. Explain the various commands used for configuring a router?	(10) (10)
O10 of Describe some of the standard symbols to create floor layout ?  bl'Explain different types of networking cables in detail ?	(10) (10)

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BESIGNATES  Standt: All (Except Chill;PHE,QSCAN) Sub; Basics Of Management  Standt: All (Except Chill;PHE,QSCAN) Sub; Basics O	Technol Literator	
Instructions: 1) Assembly blue pen.	44.000	25 J. O.
To a series of organization?	(10)	
93 What is line and functional organisation? b. What is departmentalization? What are its advantages? 6	(600)	2
	(5)	
Ω2 & Discuss the importance of management.	(5)	
D2 at Discussion in an organization? b: Why do see co-ordinate in an organization? c: Differentiate motivation and job satisfaction. What are various factors affecting	11.00	
c Differentiate motivation and job satisfaction. What we have	(10)	(0)
motivation?	(10)	
foreignal othics and its neeg?	(10)	
Q3. What do you mean by the term professional othics and its neeg?	1000	-3)
b: Explain the role of a manager	(20)	
Q4: Explain meslows need hierarchy sheary of moth about in detail.		0)
Q4: Explain muslows need hierarchy sheet to the	actory	
Q4: Explain mestives need according to the features and provisions of the f	(20)	11
QS. What do you mean by factory are	. 400,000	
act 1945:	(20)	1
gs. Explain how cost benefit, analysis plans a role in decision making. ( )		
25 Explain now control of management and expla	in the	10
Q7. Define material management. State the objectives of material management and expla	(20)	
functions of material management		
	(10)	
One Discuss the need of manpower planning   The Committee of Committees	(10)	1)
b. Write short note on Customer name.	75.5	
A FOLE implementation in an organization.	(20)	
Wildrafte the process of the process	1 com	
www.brainteaseracademy	V.Cerr	- 119
b: Differentiate between marketing and Selling		
c. Write short note on Intellectual Copy Rights (IPR)	(5)	
C. Write sport upter by programme and a		
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ME1802132

Branch: Computer Engineering Sub: Installation, Maintenance & Troubleshooting of Computer Networks Time: 3 brs. Max Marks: 100 Scheme: New Sem: 6

Instructions: 1) Attempt any 5 questions.

2) Use only blue pen.



Qnol a: Discuss the points to be kept in mind while installing the computer system.

b'What are the essentials of design of a computer room?

Qno2 a Differentiate between preventive maintenance and corrective maintenance.

b: What are the installation steps required while installing a printer?

Qno3 a: What are the environmental requirements of computer system and peripherals during installation?

b: What are bridges? Explain the advantages and disadvantages of network bridges.

Qno4 a: Differentiate between:-

(A) Domain and Workgroup

(B) Switch and Hub

b: Explain the different types of addressing used in computer network.

Qno5 a: Explain the domain name system (DNS). Discuss the main objective of using DNS.

b: Explain the Property of technology the end of the Explain the E

Ono6 a: Explain various services used to manage computer networks.

b: What do you understand by the term "grounding"? Explain the various types of grounding.

Qno7 a: Write short note on the following:-

- (A) IPAM (ip address management)
- (B) Access point
- (C) LAN cards

b: What are the reasons of LAN failure? How will you manage them?

Qno8 a: Explain different types of networking cables in detail.

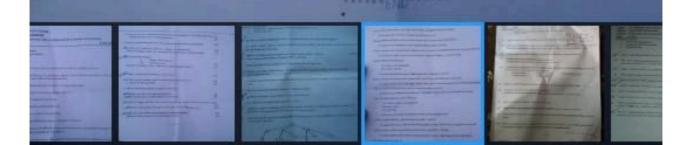
b: Explain the various methods of shielding used to protect the electronic equipment from EMI.

Qno9 a: what are I/O channels? Explain the different types of I/O channels.

b: Explain peer-to-peer network model. Also list its various advantages and disadvantages.

Qno10 Write Short notes on

- Trouble shooting of computers
- II) PC Specifications



LNO. : 2207-16M6-31611

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SS : 6TH SEMESTER (NEW SCHEME).

NCH : COMPUTER ENGINEERING.

ECT : INSTALLATION, MAINTENANCE AND TROUBLESHOOTING OF COMPUTER NETWORKS.

: 3 HRS. MAX. M

#### tions for candidate:-

I. ATTEMPT ANY FIVE QUESTIONS.

II. ALL QUESTIONS CARRY EQUAL MARKS.

II. USE BLUE PEN ONLY.

Explain in detail about preventive and corrective maintenance of computer systems.

What are the different specifications for a computer system that should be considered while punew system and how their value affects the performance?

## Explain in detailMWMM-brainteaseracademyucom

What is DNS? Explain in detail the working of DNS on internet.

Explain in detail the TCP/IP model of networking.

Explain in detail the 3-tier client-server architecture.

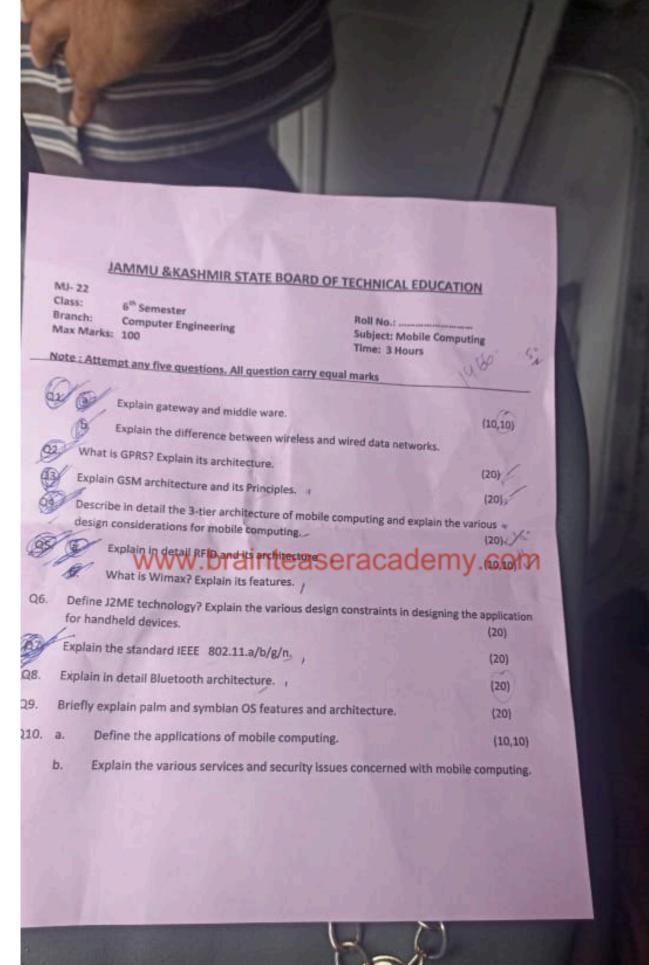
What is Squid Proxy? Explain in detail its functioning.

Explain in detail the functions of Data link layer in computer networks.

What is an IPv4address? What are its different classes and how they are designed? Calculate an ange of IP addresses of different classes of IP addresses.

What is a manageable switch and how is it different from other types of switch. What are the viconfiguration parameters that can be configured in the manageable switch?

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ROLL NO : 316-1 861601349 CLASS : 6TH SEMESTER (NEW SCHEME). BRANCH : COMPUTER ENGINEERING. SUBJECT : INSTALLATION, MAINTENANCE AND TROUBLESHOOTING OF COMPUTER NETWORKS. : 3 HRS. TIME MAX. MARKS: 100 Instructions for candidate ATTEMPT ANY FIVE QUESTIONS. ALL QUESTIONS CARRY EQUAL MARKS. USE BLUE PEN ONLY. Explain in detail about preventive and corrective maintenance of computer systems. What are the different specifications for a computer system that should be considered while purchasing a new system and how their value affects the performance? Explain in detail the differences between hub, switch, bridge and router. Q8 What is DNS? Explain in detail the working of DNS on internet. Q4. Explain in detail the TCP/IP model of networking. Explain in de MAN Wer Drain teaseracademy.com What is Squid Proxy? Explain in detail its functioning. Q7. Explain in detail the functions of Data link layer in computer networks. Q8. What Is an IPv4address? What are its different classes and how they are designed? Calculate and write the 29. range of IP addresses of different classes of IP addresses. What is a manageable switch and how is it different from other types of switch. What are the various configuration parameters that can be configured in the manageable switch?

## M.J-22 JAMESU & KASHMIR BOARD OF TECHNICAL EDUCATION

Subject: Installation, Maintenance & Troubleshooting of Computer Networks Time: 03 Hours M. Marks: 100 Schutter New

#### instructions:

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- 1. Attempt any Five Questions.
- 2. Figures to the right indicate marks.
- Q1 Explain briefly preventive and corrective maintenance? What do you understand by site preparation?
- D. Switches (Ax5) C. Bridge 02 Explain:
- Describe power supply requirements of computer and peripherals? What do you understand by "grounding shielding"? 03. 1201
- (20) 04.
- what is Squid Pro Vical Interest eracademy.com QS.
- What do you understand by DNS? DOMAIN, Workgroup
- Q7. A. What do you understand by access point configuration? [10x2]
- Briefly explain configuration of manageable switch? 8.
- [10x2] A. Troubleshooting of Routers Explain: Q8
- [20] Explain different types of addressing used in computer network? B. Router configuration [20]
- Q10. Explain with the help of a suitable diagram, TCP/IP model of networking?

starting at 128 Kbps, reduce this cost somewhat and can be found in some apartment buildings

#### IVIJ23 ROLL No: Semester:-6th (New) Branch:- COMPUTER ENGINEERING Subject:- MOBILE COMPUTING( ELECTIVE II) Max Marks:-100 Time: 03 Hours NOTE:- Attempt any five questions. All carry equal marks. Q1. Explain the first four generations of the wireless networks. [4X5] Q2. V(A) Write down the difference between wireless and wireline data networks. [10] [10] (M) What is Mobile Computing? Give its applications. [10] (A) With diagram explain the architecture of GSM network. [10] o(B) Give functionality of GSM network elements. LD4. Write short notes on (any two): [2x10] (B) Middleware (C)J2ME (A) GPRS [10] (A) Defne Wimax. Explain its features. (B) What are various applications of mobile computing? [10] teaseracademy.com [2X10] (A) CDMA Technologies Q7. (A) What is RFID? What are its applications? [8] Explain various services and security issues concerned with mobile computing.[10] What is WAP? Explain its features and applications. Q8. (A) How mobile operating systems are different than traditional standalone operating Q9. (10) (B) Explain different features of Symbian operating system.

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(210. Write short notes on following (any two)

(A) MMS.

V(B) Edge technology.

4C) 5G Mobile networks.

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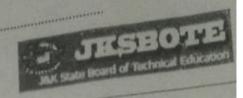
[2x10]

Rollno: ....

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granch; Computer Engineering Sub: Mobile Computing Time; 3 hrs. Max Marks: 100 Scheme; New Sein; 6 Instructions: 1) Attempt any 5 questions.

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	2) Use only blue pen.	(10)	
-	Qno.1 a: Define gateway. How gateways are used in networks?	(10)	190
	e b: Bring out the difference between wireline and wireless data networks.  One Describe in detail the 3-tier Mobile Computing Arcl. itecture and explain the various designs of the detail the 3-tier Mobile Computing Arcl. itecture and explain the various designs of the Mobile Computing Arcl. itecture and explain the various designs of the Mobile Computing Arcl. itecture and explain the various designs of the Mobile Computing Arcl. itecture and explain the various designs of the Mobile Computing Arcl. itecture and explain the various designs of t	n	10
	_ Qno2 Describe in detail the 3-tier Mobile Computing Alcano		
	considerations for Mobile Computing.	(20)	
	Qno3 What is GPRS? Also explain its architecture.	(10)	
	Qno4 a: What are the features of mobile computing? List various mobile computing devices.	(10)	
	b: What is CDMA? Explain the CDMA technology in detail.	(10)	
	Qno5 a: Explain any two 2G cellular standards.	(10)	
	b: What is WiMAX? Explain its features.	(10)	-
	Qno6 a: IPv6 is advanced addressing than IPv4. Explain.		
	b: What is RFID? Explain it with the help of tagging.	(10)	1
	*Qno7 Explain in detail WAP and MMS Protocols		
	Qno8 a: Write the features of EDGF and 3G technology academy.com	(10	)
	b: What is mobile middle ware? What are its types? Explain.	(10	0)
	Qno9 a: Explain the inte 802.11 architecture.	(1	(0)
	b: Give the features of palm and symbian operating system.	(3	10)
Q	no10 a: Briefly explain J2ME technology.	(	10)
	b: What are the design constraints in designing handheld devices?	(	(10)

## JAMMU & KASHMIR BOARD OF TECHNICAL EDUCATION

MJ-22 Subject: Basics of Management Semester: 6" Branch: Computer Engg-Scheme: New M. Marks: 100 Time: 03 Hours Instructions: 1. Attempt any Five Questions. 2. Figures to the right indicate marks. Q1. Define management also discuss its functions in detail? [20] Explain the management of men, materials & machinery in an organization? Q2. [20] Define culture in relation to management, briefly explain the pillars of organization culture? Q3. [20] How are qualities of an effective leader connected with effective motivation management? Q4 [20] Q5. [20] Name & explain the various methods employed for training workers? Q6. [20] What do you mean by marketing? Also state the objectives of market research? [20] Q7. What do you mean by patent? Describe the advantages of patent to the behavior? Q8. [20] Write down the procedure for registration of a trade mark. State the functions of tra Q9. mark? What do you mean by ethics in business. Also explain main functions of social conduct? 210

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## MJ-22 JAMMU & KASHMIR BOARD OF TECHNICAL EDUCATION

Subject: Artificial Intelligence Semester: 6th **Branch: Computer** Scheme: New M. Marks: 100 Time: 03 I Instructions: 1. Attempt any Five Questions. 2. Figures to the right indicate marks. Crances 333 What do you understand by artificial Intelligence List few applications of artificial Intelligence in games? Briefly explain architecture of a typical expert system with the help of a suitable diagr [20 What do you understand by State Space Representation? Explain the importance of Q3. "Search" in State Space Representation? [20] Mention some of the heuristic search techniques? Explain any one of the heuristic sea technique with the help of a suitable example? What are the different data types in PROLOG? Explain briefly? [20 What is an expert system? Explain its characteristics? [20 Q7.(A) What is Knowledge Representation in AI? Name the techniques involved in Knowledge Representation? What do you understand by semantic network with examples? (B) What is distributed AI? Mention few examples of AI in our everyday lives? [20] [20] Q9. Explain the role of Al in the fight against Covid-192 [20] Q10 Explain briefly the evolution of AI & list few issues of AI in games? [20]

861801052  Branch: Computer Sub: Artificial Intelligence Time: 3 hrs. Max Marks: 100 Scheme: New Sem: 6 Time: 1) Attempt any 5 questions. 2) Use only blue pen.	RollNo: JKSE  JKSE  JKSE  JKSE	O al f
what is Artificial Intelligence and how it has impacted/will in	mpact the world.	20)
Q2 a: Write a short note on natural language processing	(	5)
b: What are the various issues of AI?		5)

Q2 a: Write a short note on natural language processing.	(5)
b: What are the various issues of AI?	(5
c: What are the different search processes in artificial intelligence? Write algo-	orithm for best first
search?	(1
Q3:a: Write short note on i) a* algorithm ii) heuristicsearch.	(1
b) Explain hill climbing method in detail.	(1
Q4: Use Prepositional Logic to Prove (D) from A,B and C below:  A: P→ (Q←→R)  B:~(Q←→R)  C:(S ∧ Q)→P	
c:(s^\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	n
D: ~P Λ (S→~Q)  (Truth Table Can Be Used For the Same)	

20

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QS: Explain in detail the architecture of typical expert system. Q6 a: What are the differences between information and knowledge? b: Explain semantic network using example.

Q7: Write short note on the following: (a) propositional logic (b) first order predicate logic

Q8 a: Explain the current developments in robotics.

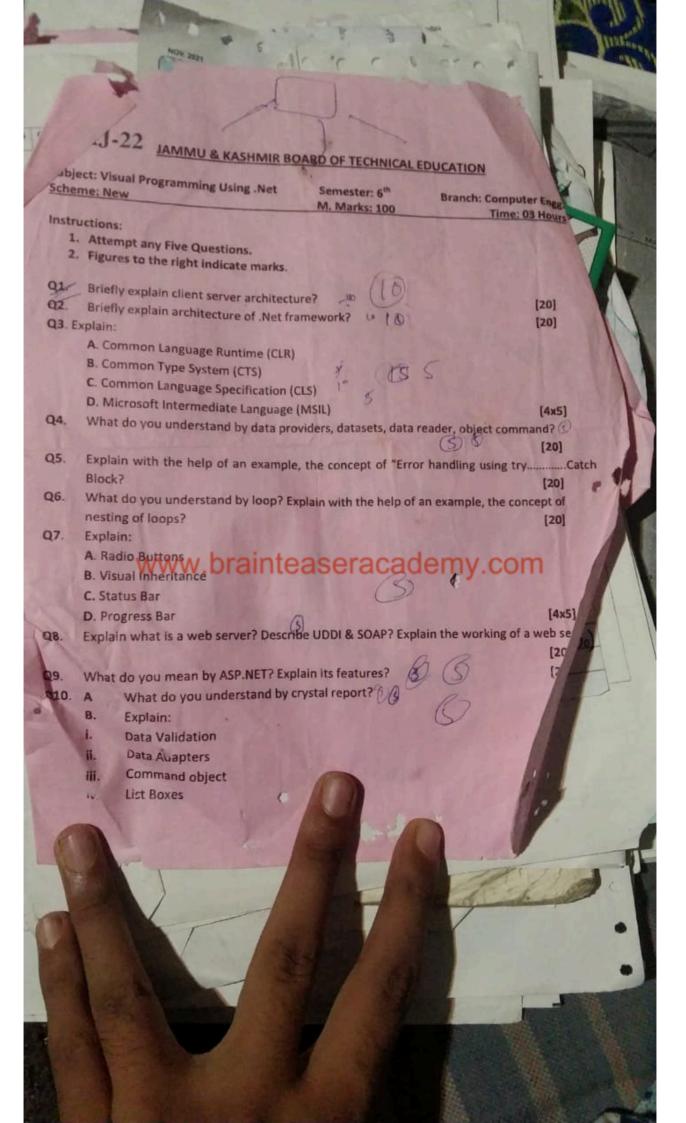
b: What is robotics and components of robotic system?

Q9 a: What are the various current developments in artificial intelligence besides robotics

b: Discuss the limitations of prolog.

Q10: a: What are the data types used in prolog language.

b: Discuss the structure of prolog.









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Class: 6<sup>TH</sup> Semester Branch: Elect/ Mech/ Auto/ WT/ T&T/ FT/ E&C/ ME/ Comp/ IT/ Arch/ I&C/ GT Time: 3 Hours Subject: Basics of Management

Scheme: New M. Marks: 100

Note: Attempt any five questions. All questions carry equal marks.

1	Define the term Management. State its features. How does Management differ from Administration?	20
2(2	) Describe the organization structure suitable for large sized organization.	10
2(b	Explain the methods of improving motivation in an organization.	10
3	Explain in detail the code of professional ethics.	20
4	What is Leadership? Discuss the need and importance of leadership in management of business organization.	20
5 V	/www.brainteaseraeademy.com	20
6(a)	Define Preventive maintenance. What are the objectives of preventive maintenance?	10
5(b)	Explain briefly the terms: patents and copyrights	10
7	"Success or failure of a consumer is directly related to Pricing Decision."  Comment. Explain nature and importance of cost- benefit analysis.	20
	Explain in detail Excise duty and custom duty	20
	Explain the need and importance of Customer Relationship Management	20
	Explain in detail the concept of Quality Assurance.	20

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### **PDF Reader**







: 6TH SEMESTER (NEW SCHEME) CLASS

BRANCH : MECH / ELECT / ME / E&C / COMP / IT / ARCH / AUTO / WT / T&T / FT / GT / I&C. SUBJECT : BASICS OF MANAGEMENT.

TIME : 3 HRS.

INSTRUCTIONS FOR CANDIDATE

MAX. MARKS: 1

- L. ATTEMPT ANY FIVE QUESTIONS, ALL QUESTIONS CARRY EQUAL MARKS.
- USE BLUE PEN ONLY.
- Q1 Define 'Management'. Explain the functions of management
- Q2 Define 'Values'. What is the importance of values? Explain the factors which affect the individual behaviour.
- (a) Seplain the hierarchical management structure.
  - (b) Differentiate between manager and leader.
- Q4 Define 'Leadership'. What are its characteristics? Explain.
- Explain the salient features of Minimum Wages Act, 1948.
- Q6. Pefine 'Human resource development'. What are its objectives? Explain.
- Explain the steps involved in manpower planning process-
- พพพ.ษาสากายลseracademy.com Q8.
  - (b) Explain 'Total quality management.'
- Define 'Customer relationship management'. What are its functions? Explain. Q9.
- What is 'inspection'? Describe the functions and objectives of inspection. Q10.

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### JAMMU & KASHMIR BOARD OF TECHNICAL EDUCATION

**Branch: Computer Engineering** Semester: 6th Subject: Artificial Intelligence Scheme: New Session: ND22B6SCE Time: 3 Hrs M.M.: 100 Note:- Attempt any five Questions. All Questions carry equal marks. Define the term Artificial Intelligence. What are the application areas of Q1. artificial intelligence? What are heuristic search techniques? Using example, explain best first (20) Explain expert systems. State and explain the various components of an Q3. (20) Q4. What is state space representation? Explain with an example? (20)Q5. What is knowledge representation? Explain the knowledge representation methods? (20)Explain the role and importance of expert knowledge engineer and user in expert systems? How are rules represented in PROLOG? Explain the statements used in PROLOGNITIVE AND INTEREST ACADEMY (20)Explain the concept of Distributed Artificial Intelligence. What are its (20)What are the features of PROLOG? With the help of an example explain the Q9. structure of PROLOG program? (20)Q10. What are the current State of the art developments in Artificial Intelligence? (20)

JAMMU & KASHMIR BOARD OF TECHNICAL EDUCATION Se ester : 6th Subject: Artificial Intelligence Branch: Computer Engineering Time: 3 Hrs Note:- Attempt any five Questions. All Questions carry equal marks Scheme: New M.M.: 100 Q1. Define the term Artificial Intelligence) What are the application areas of "hat are heuristic search techniques? Using example, explain best first State and explain the various components of an expert syst \$17 Q4. What is state space representation. What is knowledge representation? (20) methods? wordge representation Explain the role and importance of expert knowledge ingineer and user in Q6, How are rules represented in PROLOG? Explain the statements used Q7. PROLOG with examples? ainteaseracadamy com advantages? What are the features of PROLOG? With the help of an example (20) structure of PROLOG program? ole explain the Q10., What are the current State of the art developments in Afrificial Intelligence? (20) Q10. Define Disk



### **PDF Reader**







: 6TH SEMESTER (NEW SCHEME) CLASS

BRANCH : MECH / ELECT / ME / E&C / COMP / IT / ARCH / AUTO / WT / T&T / FT / GT / I&C. SUBJECT : BASICS OF MANAGEMENT.

TIME : 3 HRS.

INSTRUCTIONS FOR CANDIDATE:

MAX. MARKS: 1

- i. ATTEMPT ANY FIVE QUESTIONS. ALL QUESTIONS CARRY EQUAL MARKS.
- USE BLUE PEN ONLY.
- Q1. Define 'Management'. Explain the functions of management.
- Q2 Define 'Values'. What is the importance of values? Explain the factors which affect the individual behaviour.
- (a) Explain the hierarchical management structure.
  - (b) Differentiate between manager and leader.
- Q4 Define 'Leadership'. What are its characteristics? Explain.
- Explain the salient features of Minimum Wages Act, 1948.
- Q6. Pefine 'Human resource development'. What are its objectives? Explain.
- Explain the steps involved in manpower planning process-
- www.britingingeraseracademy.com Q8.
  - (b) Explain 'Total quality management.'
- Define 'Customer relationship management'. What are its functions? Explain. Q9.
- What is 'inspection'? Describe the functions and objectives of inspection. 010.

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JAMMU & KASHMIR BO	ARD OF TECHNICAL I	DUCATION	
MJ-22		DOCATION	
Subject: Basics of Management Scheme: New	Semester: 6th M. Marks: 100	Branch: Comput	er Engg.
The state of the s	THE STATE OF THE S	Time: 03 Hours	
Instructions:			
Attempt any Five Questions.     Figures to the right indicate marks.	1576	100	
Q1 Define management at a se		10 18334	
ocume management also discuss its fu		30 -	[20]
Q2. Explain the management of men, mat	erials & machinery in an	organization?	[20]
Q3. Define culture in relation to management	ent, briefly explain the	pillars of organiza	tion culture?
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<ol><li>What do you mean by patent? Describ</li></ol>	e the advantages of pa	atent to the beha	vior?
			[20]
. Write down the procedure for regist	ration of a trade mar	k. State the fun	ctions of tra
mark?			[20]
What do you mean by ethics in busine	ss. Also explain main f	unctions of socia	Il conduct? ,
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## MJ-22 JAMMU & KASHMIR BOARD OF TECHNICAL EDUCATION

Subject: Artificial Intelligence Semester: 6<sup>th</sup>
Scheme: New M. Marks: 100
Branch: Computer Engg.
Time: 03 Hours

#### Instructions:

- 1. Attempt any Five Questions.
- 2. Figures to the right indicate marks.
- What do you understand by artificial Intelligence? List few applications of artificial Intelligence in games? [20] Briefly explain architecture of a typical expert system with the help of a suitable diagram? Q2. [20] Q3. What do you understand by State Space Representation? Explain the importance of "Search" in State Space Representation? Mention some of the heuristic search techniques? Explain any one of the heuristic search Q4. technique with the help of a suitable example? [20] Q5. What are the different data types in PROLOG? Explain briefly? [20] What is an expert system? Explain its characteristics? [20] 27.(A) What is Knowledge Representation in Al? Name the techniques involved in Knowledge Representation? B) What do you understand by semantic network with examples? > [20] What is distributed AI? Mention few examples of AI in our everyday lives? [20]

Explain the role of AI in the fight against Covid-19?

18. Explain briefly the evolution of Al & list few issues of Al in games?

