

7th Semester Examination –2021-22

Subject

: Advanced Computer Architecture

Roll No:

Course

: B.Tech, CSE

Full Marks

: 70

Time: 3 Hours.

Instructions to the Candidates:

- Read the question paper very carefully.
- Candidates are required to give their answers in their own words as far as practicable.
- Question Paper is divided into Three Parts -A, B & C.
- Part-A is containing 12 multiple choice questions.
- Part- B containing SIX questions out of which FOUR questions are to be answered.
- Part C containing FOUR questions out of which TWO questions are to be answered.
- Do not write anything except your Roll No. on the question paper.
- Possession of Mobile Phones or any kind of Written Material, Arguments with the Invigilator or <u>Discussing with Co-Student</u> will comes under <u>Unfair Means</u> and will <u>Result</u> in the Cancellation of the Papers.

MILL PURE CANONICE	PART	<u>'A</u>	
MULTIPLE CHOICE QUESTION	ONS		(12x1=12)
1) There are types of Pipe a. 2	elining b. 3	c. 4	d. 5
2) Assembly line operation isa. Vector operations	also called as	b. Parallel operations	
c. Pipelined Process		d. Von Neumann Cyc	ele
3) The locality of reference coa. Many conditional jumpsb. Many operands	ncept will fail where	there are: b. Many unconditiona d. None of them	l jumps
4) The throughput of a super so a. Less than 1	calar processor is b. 1	c. More than 1	d. Constant
5) The concept of placing a por a. Normalized	int to the right of first b. Orthogonal		d. Bipartite.
6) In super-scalar processors, _a. In-order	b. Post-order		d. None of them

7) super-scalar proc	cessors, mode o	of execution is used	
a. SIMD	b. MIMD	c. MISD	d. Both a and c
8) In 32 bit representation the	he scale factor as a range	of	
a128 to 127	b256 to 255	c. 0 to 255	d. Undefined
9) The 32 bit representation	of the decimal number is	called as	
a. Double precision	b. Single precision	c. Extended format	d. None of them
10) What is the bottleneck, w	when it comes to computer	performance?	
a. Memory Cycle Time	b. Memory access T	ime c. Delay	d. latency
11) For an n-bit result registe	er, what is the value of n for	or the multiplication of 11	0 * 1000?
a. 5	b.3	c4	d. 4
b. Only one disk participc. I/O cycle consumes a ld. All of them			
	PART B		
NSWER ANY FOUR OUT (OF SIX		(4x7=28)
2. What are the compone3. Mention what is the us4. What is stall? Name di	se of RAID system. ifferent hazards related to write-back and write-thro rtual memory.	pipelining. ugh cache.	
NSWER ANY TWO OUT O	F FOUR		(2 x15=30)
1. Define word length. Dif		are and Hardware interrup	

- 2. What is DMA? Name and explain the three modes of DMA.
- 3. What is data hazard? Explain various types of mapping functions in cache memory.
- 4. Consider a program whose instruction count is 50,000, average CPI is 2.2, and clock rate is 1.9 GHz. Suppose we use a new compiler on the same program for which the new instruction count is 40,000, and new CPI is 3.1, which is running on a faster machine with clock rate 2.5 GHz. Prove that the speedup achieved will be 1.167.



7th Semester Examination –2021-22

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: Cryptography and Network Security (Elective-iv)

Roll No :.....

Course

: BTECH CSE

Time

: 3 Hours.

d. Hill cipher

Full Marks

: 70

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PART A

MULTIPLE CHOICE QUESTIONS

a.. Additive cipher

				(12x1=12)
1.	is used for enc	rypting data at network level.		
	a. IP Sec	b HTTPS	c. SMTP	d. S/MIME
2.	is a proces	s which verifies the identity of	a user who wants to ac	ccess the system.
	a. Authentication above	b. Non-repudiation	c. Integrity	d. None of the
3.	encodes informat	ion in a way that only the auth	orized personnel can d	ecrypt them.
	a. Link-Oriented measures		b. Data encryption	
	c. End-to-end measures		d. Association orien	ted measures
4.	A program that copies itself			MARKET
	a. Worm	b. Virus	c. Trojan	d. Bomb
5.	is another cryptography for the extra-se	data hiding technique which c ecure method of protecting dat	an be used in conjunct	ion with
	a. Cryptography	b. Steganography	c. Tomography	d. Chorograph
6.	Which of the following is no	ot a type of mono alphabetic ci		2 1

b. Multiplicative cipher c. Afffine cipher

7.	The science and art of breaking a. Cryptanalysis these	ng the secret code is b. Cryptography	c. Steganograp	bhy d. None of	
8.	is a process	which verifies the iden	tity of a user who want	s to access the system.	
	a. Authentication above	b. Non-repudiation	c. Integrity	d. None of the	
9.	URL stands for –				
	a. Universal Remote Locato	r	b. Universal Resource	Language	
	c. Uniform Resource Locato	or	d. Uniform Resource	Language	
10.	The acronym DES stands for	Who day by the care a	HILL BOOK HEREIT HEREIT		
	a. Data Encryption Standard	Lagran Brach Bank and A	b. Digital Encryption	System	
	c. Digital Evaluation System	n	d. Double Encryption Standard		
11.	The DES Algorithm Cipher	System consists of	_rounds (iterations) eac	h with a round	
	Key.				
	a. 12 b.18		c. 9	d. 16	
12	. In tunnel mode, IPSec protect	cts the			
	a. Entire IP packet	b. IP header	c. IP payload	d. IP trailer	
	•	PART B			
NS	WER ANY FOUROUT OF	SIX		(4x7=28)	
. Wl 2. Dr 3. Ex 4. Wl 5. Wr	nat is the need for computer so aw a neat diagram of DES Pro plain with Example-Mono alp nat is KEY-DISTRIBUTION- rite the advantages and disadv plain IPSEC.	ecurity? How many typocedure and mention the bhabetic cipherCENTER?	e steps. key cryptography	attacks are there?	
ANS	WER ANY TWO OUT OF	FOUR		(2×15-20)	
2. Ex	rite a short note on various kinglain Digital Signature in det aplain the architecture of ELE hat are the Major Network se	ails with neat diagram. CTRONIC –MAIL.		(2x15=30)	



1011,

d. C2C

7	th Semester Examinat	ion –2021-2	2	
Subject F.C	OMMERCE and ERP (Open	Elective-II)	Roll No	:
Subject : E-C Course : BTI	ECH CSE		Time	: 3 Hours.
Full Marks : 70				Maria Pala de Caración de Cara
 Question Paper is division Part-A is containing 1 Part-B containing SI Part C containing FO 	Candidates: er very carefully. ed to give their answers in their of ded into Three Parts -A, B & C. 2 multiple choice questions. K questions out of which FOUR of UR questions out of which TWO gexcept your Roll No. on the questions or any kind of Written will comes under Unfair	questions are to be questions are to b stion paper.	answered.	e Invigilator or
Papers.		en Grandonico		account A
	PART	A		(12x1=12)
MULTIPLE CHOICE C	QUESTIONS			
1 The dimension of e-c	ommerce that enables comme	erce across natio	nal boundar	ies is
calleda. Interactivity	b. Global reach	c. Richnes		d. None of these
	ng describes e-commerce?			
a. Doing business e		b. Doing b	ousiness	
		d. All of t	he above	
c. Sale of goods		· · · · · · · · · · · · · · · · · · ·	with format	ting instructions of h
3. Ais a docume	nt, typically written in plain to	ext interspersed	With format	
a. Web page	b. home page	c. domair		d. none of these
4. Monster.com is an ex	ample ofwebsite			
a. C2C	b. B2E	c. B2B		d. B2C
5 What are plastic cards	, the size of a credit card that			
Information can be store a. Customer relation	ed. Ionship management system o	b. E-go	vernment id of the above	entity cards
		u. I volic	01 011	

c. C2B

6. Most individuals are familier with which form of E-Commerce?

b. B2C

c. Smart cards

a. B2B

7. Ais the set of p	lanned activities designation	gned to result in a profi	t in a marketplace
a. business model	b. profit plan	c. business plan	d. revenue model
8. Which products are peop a. Books	le most likely to be co	omfortable buying on the c. CDs	he internet? d. All of the above
9. The solution for all busin	ess need id		
a. EDI	b. ERP	c. SCM	d. None of these
10. What is the percentage of			
a. Affiliate programs	b. Click-through	c. Spam	d. Conversion rate
11. Which of the following	are advantages norma	lly associated with B2I	
a. Shorter cycle time's		b. Reduction in cost	
c. reaches wider audien	ce's	d. all of the above	
12. Broadband is generally cand video at or above	considered to be any c	ommunication technol	ogy allowing streaming audio
a. 100 kbps	b. 56.6 kbps	c. 10 kbps	d. 30 kbps
			For weather all 1
	PAR	<u>T B</u>	
ANSWER ANY FOUR OU	T OF SIX		
 Explain online selling tech What is concept selling? E 	niques. xplain.		(4x7=28)
3. Discuss the security issues4. Explain Production and pla5. What is digital payment sy6. Define Digital Currencies.	anning module in ERI stem? Explain.	is transferred over inte	ernet.
	PA	ART C	
ANSWER ANY TWO OUT	OF FOUR	3.00	
1. What is E-Cash? Explain it	s working principle.		(2x15=30)
2. What is Customer relations	hip Management Mod	dule in ERP? Why it is	required? Explain.
3. Why Smart card is used? E			
4. Write a short note on Electr			



7th Semester Examination –2021-22

Subject Course

: Biology

: B. Tech (CSE)

Full Marks

: 70

Time

Roll No

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PART A MULTIPLE CHOICE QUESTIONS (12x1=12)1. Plant receive their nutrient mainly from a. Chlorophyll b. Atmosphere c. Light d. Soil 2. Plant synthesis protein from a. Starch b. Sugar c. Amino Acid d. Fatty Acid 3. Plants absorb dissolved nitrates from soil and convert them into a. Free Nitrogen b. Urea c. Ammonia d. Protein 4. Movement of cell against concentration gradient is called a. Osmosis b. Active Transport c. Diffusion d. Passive Transport 5. Photosynthesis generally takes place in which part of the plant a. Leaf and chloroplast bearing parts c. Stem and Leaf b. Roots and chloroplast bearing parts d. Bark and Leaf 6. Prokaryotic cells lack a. Nucleolus c. Nuclear Membrane b. Membrane bound by organelles d. All of these 7. The term cell was given by a. Robert Hooke b. Tatum c. Schwann d. De Bary

- **8**. The cell is not applied for
 - a. Algae

- b. Bacteria
- c. Virus
- d. Fungi
- 9. Out of proteins, lipids and carbohydrates present in a cell membrane, what is true?
 - a. Lipids are maximum

c. Carbohydrates are minimum

b. Carbohydrates are maximum

- d. All three are in equal proportion
- 10. Which of the following cell organelles is absent in animal cells and present in a plant cell?
 - a. Cell Wall

- b. Cytoplasm
- c. Vacuoles
- d. Mitochondria
- 11. Which of the following cell organelles does not contain DNA?
 - Nucleus
- **b.** Lysosomes
- c. Chloroplast
- d. Mitochondria
- 12. Which of the following statements is true about the cell wall?
 - a. The cell wall is mainly composed of lipid
 - b. The cell wall is mainly composed of starch
 - c. The cell wall is mainly composed of protein
 - d. The cell wall is mainly composed of cellulose

PART B

ANSWER ANY FOUR OUT OF SIX

(4x7=28)

- 1. What do mean by Cell? Who discovered the cell theory?
- 2. State the difference between DNA and RNA?
- 3. What do you mean by Habitat? Explain terrestrial habitat with examples?
- 4. Explain the silent features of cell Theory?
- 5. Explain amino telic, ureotelic, ureotelic organisms with examples?
- 6. What do you mean by Enzyme? State its characteristics?

PART C

ANSWER ANY TWO OUT OF FOUR

(2x15=30)

- 1. State the Difference between Prokaryotes and Eukaryotes
- 2. How Biology is related with Physics, chemistry and math?
- 3. State the Difference between Eye and Camera?
- 4. Discuss about the single gene disorders in humans?