Gandaki College of Engineering and Science

		ebelor Year	0010
Leve Prog	l: Ba ramn	ne: Software engineering Full Marks:	2019 100 3 hrs.
Cour	se: P	languages	
Can	didat	tes are required to give their answer in their words as for as practicable.	
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Att	emp	tall the auestions	
	a)	Why developer uses poddeterming language. Write characteristics of good programming language.	g? 8
2.	b) a)	Describe the domains to be considered while designing psuedocode. "pass by name is dangerous and expensive in Fortran", Explain it wit suitable example.	7 th 8
3.	b) a)	Describe syntactic structure of FORTRAN. How does ALGOL follow "Zero-One-Infinity Principle?	7 7
	b)	Write a BNF description for the following data type. i)Integer ii)Unsigned Integer iii)Number	8
4.	a)	iv)Unsigned number How information are represented by Property lists and Association lists in LISP?	8
5.	b) a)	Write characteristics of Function –oriented programming languages. How classes and objects are represented in Smalltalk?	7 8
6	b) a) b)	Describe structural organization of Smalltalk. Write a program to find the sum of square of first 10 natural numbers in Fortran77. Differentiate CAR and CDR Selectors.	7 10
.7	~	Write short notes on: (any two) Computed GOTO	5 2*5
	iii	First generation languages	

GANDAKI COLLEGE OF ENGINEERING AND SCIENCE SPRING SEMESTER

ASSESSMENT EXAMINATION

Level: Bachelor Programme: B.E. Software Programme: B.E. Software Course: Multimedia System Course: Multimedia System Condidates are required to give their answers in their own words as far as practicable. The figures in the margin indicate full marks. In the margin indicate full marks. Attempt all the questions. 1. (a) Define multimedia. Explain the main properties of multimedia. Explain the MIDI messages with examples. Explain DCT based JPEG image compression technique. What is run length coding? Construct the Huffman code for. (a) What is run length coding? Construct the Huffman code for. (b) What are the differences between CD-ROM (XA) form-1 and CD-ROM (XA) from-2. Illustrate above with a block diagram. 7 Define Multimedia OS. Explain the characteristics of real time OS. (b) Explain MPEG compression algorithm. 7 Define the term speech. Describe time dependent sound concatenation with a necessary example. (b) Explain DVI video processing. 7 Define MCS. Explain the Resource Management in the context of Multimedia. 7 Write short notes on (Any Two) 2x5=10 (a) H261 (b) QoS (c) MHEG		Rac	helor							Year:	2019
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"Best of Luck"

GANDAKI COLLEGE OF ENGINEERING AND SCIENCE

Level: Bachelor

Semester - Spring

Year

:2019

Programme: BESE Full Marks: 100 Course: Computer Network Time : 3 hrs Candidates are required to give their answer in their words as for as practicable. The figures in the margin indicate full marks. Attempt all the questions Il the questions
What is active network model? What are the usages of computer networks? What is active network in a services of layered architecture. How are interfaces, protocols and services of 7 1. a) b) layered system related? What are the metrics of network performances? Describe them in short. What are the services provided by data link layer? Explain techniques of framing? What are the services provided by data link layer? Explain techniques of framing? 8 2. a) What are the solvines provided with the solving redundancy check code? Calculate CRC code for following message 7 b) 7 a) 3. Message: 11100101 Generator polynomial: $x^4 + x^3 + x + 1$ Describe distance vector routing with example. b) Describe distance votation of 3 different departments with 20, 24 and 30 computers. Explain 4. a) An organization consists of 3 different departments by subject: how you will design three subnets for the departments by subnetting 192,168.1.0/24 network. Provide network address, broadcast address, subnet mask, wildcard mask and usable IP pool for each subnet. by What do you mean by traffic shaping? Explain the related algorithms. 5. a) Explain about DHCP in brief. b) What is SMTP? Differentiate POP and IMAP protocols. 6. a) What is asymmetric key? How does it ensure data security? Explain DES encryption algorithm with suitable diagram Write short notes on (any two). 7. CSMA/CD a) IPv4 packet structure b) WWW

GANDAKI COLLEGE OF ENGINEERING

Course: Engineering Economics Programme: Software Engineering Level: Bachelor Internal Examination Time

Pass Marks: 45 Year : 2019 Full Marks: 100

: 3hrs.

Candidates are required to give their answers in their own words as far

The figures in the margin indicate full marks

Attempt all the questions

- engineering economics. Define engineering economics. Enlist the principle of
- Calculate the future worth of the following cash Explain opportunity cost, marginal cost and sunk cost with
- deposited at 8% compounded continuously for 5 years. Rs 50,000 at the beginning of each year.

flows

- Rs 50,000 at the end of each year.
- A company is investing the purchase of new equipment. Interest rate is 9%. The cash flow for the equipment is as 2,000, annual income Rs 9,000, and salvage value Rs 10,000, follows: Initial investment Rs 50,000, annual operating cost Rs
- Is this investment worth undertaking?

What should be the minimum annual benefit for making it a worthy of investment at 9% rate of return?

Evaluate IRR of the following project and identify whether the project is feasible or not and prepare unpaid investment balance

(UIB) both in table and diagram. Take MARR=10%. Net cash flow -10,00,000 4,00,000 3,60,000 2,80,000 3,20,000

2,40,000

<u></u> Using co-terminated assumption recommend the best project taking study period as 5 years.

			4	-	Initial Investment	5
	5 Years	35,000	15,000	1,30,000	3,50,000	Α
10%	8 Years	50,000	25,000	1,75,000	5,00,000	В

contingent project with proper combination. Define mutually exclusive project, independent project and

<u>5</u>

- Find breakeven point both in units and values. What would be selling price decreases by 30%. the effect on profit/ loss when fixed cost increases by 20% and
- <u>5</u>2 Discuss the concept of economic development in detail.
- 6. a Construction equipment has initial cost and annual saving per operating and maintenance cost of Rs 7,000. It will depreciate year is of Rs 40,000 and Rs 20,000 respectively with annual by MARCS method and will have no salvage value. The useful life of equipment is 5 years. Estimate before and after tax cash flow. The company pays income tax @ 40%.

What do you understand by cost of capital? Discuss public What is trial balance sheet? State the limitations of trial balance private partnership in detail

Write short notes on: (Any two)

Cash flow diagram

Basic methods of depreciation

2×5

Inventories turnover

GANDAKI COLLEGE OF ENGINEERING AND SCIENCE Level: Bachelor 2019 Full Marks: 100 Programme BESE Semester - Spring Course: Object Oriented Software Development 3 hrs Time Candidates are required to give their answer in their words as for as practicable. The figures in the management of the property of the prope The figures in the margin indicate full marks. Attempt all the questions What do you mean by Object-oriented Analysis and Object-oriented Design? List briefly 8 the activities rese the activities performed in object oriented analysis. Differentiate process and product engineering. Justify process engineering ultimately is also a product engineering. a product engineering. Change management is very important in Iterative and Incremental Development. Why and how is it down a) how is it done? What is Use Case Realization? Justify the statement "All other models can be developed 8 b) from the use case model". Explain cohesion and coupling. How are the concepts of coupling and cohesion useful in 3. · a) achieving a good software design? Define design pattern. Compare similarities and dissimilarities between factory and abstract 8 b) factory design pattern. Design is four dimensional view of a system. Justify along with design concepts. Write about structure and documentation of pattern 4. a) What do you mean by Concurrency Design Pattern? Illustrate concurrency design pattern b) with one example. What are the difficulties and risks while using design pattern? Discuss in brief. 7 5. a) Compare Client Server and Distributed Architecture. Explain the role of distributed architecture in today's world of automation. Compare and contrast design and architectural pattern. 7 6. a) Describe Message Oriented architecture with a help of an example. b) Write short notes on (any two). Service Oriented Architecture a) Architecture centric process b) Data Access Pattern c)