

KRISHNA KANTA HANDIQUI STATE OPEN UNIVERSITY

HIRANYA KUMAR BHUYAN SCHOOL OF SCIENCE AND TECHNOLOGY

HOME ASSIGNMENT

BACHELOR OF COMPUTER APPLICATION

4th Semester Assignment

2020

COMPUTER ORGANIZATION
GCA S4 01
4th Semester
2020

Total Marks: 50

Assignments are required to be written in your own language. Copying from the learning materials will carry less score

A. Answer the following questions:

2 X 4 = 8

- Q1. Give the difference between combinational and sequential circuits.
- Q2. Add the hexadecimal numbers ABC with 123.
- Q3. Give the difference between logical and physical address.
- Q4. What are the advantages of RISC over CISC?

B. Answer the following questions:

3 X 4 = 12

- Q1. How does the communication between a particular device and the processor happen?
- Q2. Describe the steps from fetching to execution of instruction.
- Q3. Explain the differences between Programmed I/O and Interrupt driven I/O.
- Q4. Explain Memory READ and WRITE operation.

C. Answer the following two questions:

5 X 2 = 10

- Q1. Describe the working technique for Direct Memory Access (DMA).
- Q2. What are the different addressing modes in 8085? Give examples.

D. Answer the following two questions:

10 X 2 = 20

- Q1. Define pipelining. What are the different classifications of pipelining hazards?
- Q2. Describe the working of RS Flip Flop in detail.

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Programming in Java
GCA S4 02
4th Semester, 2020

Total Marks: 50

Assignments are required to be written in your own language. Copying from the learning materials will carry less score

A. Answer the following questions:

2 X 4 = 8

- Q1. What is a Java applet?
- Q2. How array is declared and initialized in Java. Give an example.
- Q3. What are the access control attributes in Java?
- Q4. What happens if a thrown exception is not caught?

B. Answer the following questions:

3 X 4 = 12

- Q1. What is mean by Swing and AWT ? Explain their differences.
- Q2. Compare the statements *break* and *continue* with example in terms of their functions
- Q3. How does a String class differ from a String Buffer class?
- Q4. Write down the four basic steps to JDBC.

C. Answer the following two questions:

5 X 2 = 10

- Q1. Write a program in Java which will read a line of text and count the total numbers of vowels in the text.
- Q2. Write a program in Java for addition of matrices.

D. Answer the following two questions:

10 X 2 = 20

- Q1. Write a Java program to do the following operations:
 - a) Read information of n students. The class name should be *kkhsou* with the member variable *name*, *rollno*, *center_code* and *percentage* in last exam.
 - b) Display the students data whose percentage is more than 80.
- Q2. Design a class to represent a bank account. Include the following data members: *Account number*, *Depositor name*, *Account type*, *Balance amount in the account* .
Methods: To assign initial value
 To deposit an amount
 To withdraw an amount after checking balance
 To display depositor name and balance

Software Engineering
GCA S4 03
4th Semester, 2020

Total Marks: 50

Assignments are required to be written in your own language. Copying from the learning materials will carry less score

A. Answer the following questions:

2 X 4 = 8

- Q1. What is critical path? What are the different parameters needed to be calculated for critical path?
- Q2. What is an open-ended and closed-ended questionnaire?
- Q3. What is unit testing?
- Q4. Give the difference between software product and software program.

B. Answer the following questions:

3 X 4 = 12

- Q1. Compare Expert judgment and Delphi cost estimation techniques.
- Q2. What is risk management?
- Q3. Distinguish between white box testing and black box testing.
- Q4. Discuss the various skills required for a system analyst in the various stages of the system development life cycle.

C. Answer the following two questions:

5 X 2 = 10

- Q1. What are Organic, semidetached and embedded software projects?
- Q2. What are the three important factors by which software engineering is driven by? Describe briefly the factors on which quality and productivity of software product depends.

D. Answer the following two questions:

10 X 2 = 20

- Q1. What is Object-Oriented software design? Differentiate between Use Case Diagram and Activity Diagram? Name the tree different types of modeling in UML.
- Q2. Explain complete COCOMO model with an example.

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Assignment Guidelines

A. Guidelines to Co-ordinators:

1. Assignments are parts of teaching-learning process and compulsory.
2. The spirit behind this is to help learners to understand the subject and prepare themselves better for the term-end examination.
3. Assignment responses are to be evaluated and feedbacks are required to be communicated to the learners, by giving back the assignments with evaluator's comments. Such assignments are to be collected at the time of issuing admit cards and be stored in the centre's office till the end of next semester.
4. Assignment marks are to be sent to the Controller of Examinations as soon as the examination routines are published.
5. Keeping the above points in mind Co-ordinators will fix the time/date of submission of assignments by the learners as may be convenient to follow the guidelines in true spirits.

B. Guidelines to learners:

1. As soon as the SLMs are received the learners will write the assignments in their own handwriting (assignment questions may be downloaded from the website, if necessary) to be submitted to Co-ordinators as per the dates fixed for the purpose. Timely submission of assignments at the Study Centres will help in quick processing of results of respective learners. Otherwise this will create unnecessary delay in declaration of results.
2. Writing of assignment (work) and submission of the same in time is compulsory.

Registrar

N.B. The learners will have to collect receipt after submitting the assignment with the signature and seal of the collector of study centre and will have to keep with him/her till the declaration of result.

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Receipt

Received the assignment from Mr/Ms

Enrollment numberof **4th Semester BCA** on2020.

Date:

Signature of collector with seal

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