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PD—08—2024

FACULTY OF SCIENCE & TECHNOLOGY

B.Sc. (Third Year) (Sixth Semester) EXAMINATION

MARCH/APRIL, 2024

(Revised/CBCS Pattern)

COMPUTER SCIENCE

(Fundamentals of Image Processing)

(Friday, 04-04-2024)   **Time : 10.00 a.m. to 1.00 p.m.**

Time—3 Hours   *Maximum Marks—75*

N.B. :— (1) *All* questions carry equal marks.

   (2) Figures to the right indicate full marks.

1. Attempt any *five* of the following :   15

   (*a*) What are color fundamentals ?

   (*b*) Explain applications of image processing.

   (*c*) Explain Data Class.

   (*d*) Explain fundamental steps in digital image processing.

   (*e*) Explain background.

   (*f*) Explain model of image degradation and restoration process.

   (*g*) Explain pseudo color image processing.

P.T.O.

2. Attempt any *three* of the following : 15

    (*a*) Explain RGB color model.

    (*b*) Explain fundamental of filtering.

    (*c*) Explain introduction to M function programming.

    (*d*) Explain image types.

    (*e*) Explain matrix representation.

3. Attempt any *three* of the following : 15

    (*a*) Explain components of an image processing system.

    (*b*) Explain basic of full color image processing.

    (*c*) Explain Histogram processing and its function plotting.

    (*d*) Explain CMY color model in image processing.

    (*e*) Explain noise models in image restoration.

4. Attempt any *three* of the following : 15

    (*a*) Explain variables and arrays.

    (*b*) Explain linear spatial filtering.

    (*c*) Explain histogram equalization.

    (*d*) Explain non-linear spatial filtering.

    (*e*) Explain introduction to digital image processing.

5. Write short notes on any *three* of the following : 15

    (*a*)   Image registration

    (*b*)   HSV color model

    (*c*)   Scalar and array operation

    (*d*)   Multidimensional array

    (*e*)   Color spaces.

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PD—16—2024

FACULTY OF SCIENCE AND TECHNOLOGY

B.Sc. (CS) (Sixth Semester) EXAMINATION

MARCH/APRIL, 2024

(CBCS/Revised Pattern)

COMPUTER SCIENCE

Paper AF-21

(Linux Administration)

(Saturday, 6-4-2024)   **Time : 10.00 a.m. to 1.00 p.m.**

Time—Three Hours   *Maximum Marks—*75

N.B. :— (*i*)   *All* questions are compulsory.

   (*ii*)   Figures to the right indicate full marks.

   (*iii*)   Assume suitable data, if required.

   (*iv*)   Use of any electronic media such as mobile phone, digital diary and electronic calculator is not permitted.

1. Attempt any *five* of the following (**3** marks each) :   15

   (*a*)   Explain managing groups in Linux.

   (*b*)   Explain DNS.

   (*c*)   Explain Scheduling tasks.

P.T.O.

(*d*)　Explain priority scheduling in brief.

(*e*)　Explain NTSYSV in brief.

(*f*)　Explain Kill and Killall command with syntax and example.

(*g*)　Explain printing commands with syntax and example.

2.　Attempt any *three* of the following (**5** marks each) :　15

(*a*)　Explain installation steps of Linux OS.

(*b*)　Explain how to boot linux into default run level.

(*c*)　Explain managing user accounts in Linux.

(*d*)　What are consol based monitoring tools ?

(*e*)　Explain advantages of Linux.

3.　Attempt any *three* of the following (**5** marks each) :　15

(*a*)　Explain dynamic host configuration protocol.

(*b*)　Explain backup software in Linux.

(*c*)　Explain advanced wireless networking.

(*d*)　Explain telnet server in brief.

(*e*)　Explain KDE process and system monitoring tools.

4.　Attempt any *three* of the following (**5** marks each) :　15

(*a*)　Explain starting and stopping apache web server.

(*b*)　Explain concept of samba in detail.

(*c*)   Explain setting up SSH server.

(*d*)   Explain backup strategies.

(*e*)   Explain various backup media.

5.   Write short notes on any *three* of the following (**5** marks each) :   15

(*a*)   Managing password

(*b*)   Granting system administrative privileges to regular user

(*c*)   Configuration of local printer

(*d*)   Disadvantages of Linux

(*e*)   Network configuration tools.

PD—02—2024

FACULTY OF SCIENCE & TECHNOLOGY

B.Sc. (Third Year) (Sixth Semester) EXAMINATION

MARCH/APRIL, 2024

(Revised/CBCS Pattern)

COMPUTER SCIENCE

(BCS-601)

(Mobile Application Development)

Tuesday, 02-04-2024)   **Time : 10.00 a.m. to 1.00 p.m.**

Time—3 Hours   *Maximum Marks*—75

N.B. :— (1) Attempt *all* questions.

       (2) *All* questions carry equal marks.

1. Attempt any *five* of the following :   15

   (*a*) Explain procedure for adding activity.

   (*b*) What is use of Android operating system ?

   (*c*) Explain android stack in detail.

   (*d*) Explain button control in detail.

   (*e*) Discuss alert dialog box in detail.

   (*f*) Explain features of android operating system.

   (*g*) Explain shared preferences in detail.

P.T.O.

2. Attempt any *three* of the following : 15

   (*a*) What are the basic components of android ?

   (*b*) Explain in detail android development tools.

   (*c*) Explain procedure to create application template.

   (*d*) Explain steps to install android.

   (*e*) Explain the different operating systems used on mobile devices.

3. Attempt any *three* of the following : 15

   (*a*) Explain structure of android application.

   (*b*) Explain fragments in android.

   (*c*) What is use of AndroidMainfest.xml ?

   (*d*) Explain time picker and date picker view.

   (*e*) Explain web view in detail.

4. Attempt any *three* of the following : 15

   (*a*) What is use of option menu and context menu ?

   (*b*) Explain intents and intents filter.

   (*c*) Explain an activity life-cycle.

   (*d*) Explain SQLite database.

   (*e*) Explain localization in detail.

5.   Write short notes on any *three* of the following :   15

   (*a*)   Android versions

   (*b*)   Style and themes

   (*c*)   Displaying map

   (*d*)   Toggle Button

   (*e*)   Publishing application.

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PD—15—2024

FACULTY OF COMPUTER SCIENCE

B.Sc. (Third Year) (Sixth Semester) EXAMINATION

MARCH/APRIL, 2024

(CBCS/Revised Pattern)

COMPUTER SCIENCE

Paper BCS-604A

(Software Process Management)

(Saturday, 6-4-2024)   **Time : 10.00 a.m. to 1.00 p.m.**

Time—Three Hours   *Maximum Marks—*75

N.B. :—   (*i*)   *All* questions are compulsory.

        (*ii*)   Figures to the right indicate full marks.

        (*iii*)   Assume suitable data, if required.

1.   Attempt any *five* of the following (**3** marks each) :   15

   (*a*)   Explain Software Application Domain.

   (*b*)   Explain Process Pattern in short.

   (*c*)   Explain Defect Removal Efficiency in Software Engineering.

   (*d*)   Explain Process Assessment in detail.

   (*e*)   Explain Specialized Process Model.

   (*f*)   What is Process Metrics ?

   (*g*)   What is Software Process Maturity ?

P.T.O.

2. Attempt any *three* of the following (**5** marks each) : 15

   (*a*) Explain Evolutionary Process Model in detail.

   (*b*) Explain Prototype Model.

   (*c*) What is Aspect Oriented Software Development ?

   (*d*) Discuss the Formal Method Model in detail.

   (*e*) Explain Waterfall Model in detail.

3. Attempt any *three* of the following (**5** marks each) : 15

   (*a*) What are the different software myths and their facts ?

   (*b*) Explain the Optimizing Process in detail.

   (*c*) Explain Personal Software Process (PSP) in detail.

   (*d*) Explain the Repeatable process of Software Process Maturity.

   (*e*) Explain the Initial Process of Software Process Maturity.

4. Attempt any *three* of the following (**5** marks each) : 15

   (*a*) What is defined process ?

   (*b*) Explain CMM.

   (*c*) Explain Team Software Process (TSP).

   (*d*) Explain PCMM.

   (*e*) Explain the Evolving Role of Software.

5.   Write short notes on any *three* of the following (**5** marks each) :   15

    (*a*)   Explain the principle of Software Process Change.

    (*b*)   Explain CMMI.

    (*c*)   Explain a Generic Process Model in detail.

    (*d*)   Explain the Metrics for Software Quality.

    (*e*)   Explain Software Measurement in detail.