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GK—23—2023

FACULTY OF SCIENCE AND TECHNOLOGY

BCA (Fifth Semester) EXAMINATION

APRIL/MAY, 2023

(CBCS/Revised Pattern)

COMPUTER APPLICATION

(Cloud Computing)

(Wednesday, 26-4-2023)

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 cloud computing in brief.

(b) Explain AJAX.

P.T.O.

- (c) Explain SOAP.
- (d) Explain web enabled application.
- (e) Explain Big table.
- (f) Explain emergence of software as a service.
- (g) Explain HDFS.
2. Attempt any *three* of the following (5 marks each) : 15
- (a) Explain laas.
- (b) Explain Amazon EC2.
- (c) Explain mainframe architecture.
- (d) Explain REST.
- (e) Explain Microsoft azure.
3. Attempt any *three* of the following (5 marks each) : 15
- (a) Explain client server architecture.
- (b) Explain GFS.
- (c) Explain DEV 2.0.
- (d) Explain 3-tier architecture.
- (e) Explain internet of services.
4. Attempt any *three* of the following (5 marks each) : 15
- (a) Explain PaaS.

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- (b) Explain relational databases.
 - (c) Explain mashups.
 - (d) Explain SOAP Vs. REST.
 - (e) Explain Cloud computing applications.
5. Write short notes on any *three* of the following (5 marks each) : 15
- (a) Cloud computing applications
 - (b) GFS
 - (c) HBase
 - (d) Microsoft Azure
 - (e) Dynamo.

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GK—22—2023

FACULTY OF SCIENCE AND TECHNOLOGY

BCA (Third Year) (Fifth Semester) EXAMINATION

APRIL/MAY, 2023

(CBCS/Revised Pattern)

COMPUTER APPLICATION

Paper BCA-504-A

(Computer Network)

(Wednesday, 26-4-2023)

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) What is computer Network ? Explain.

(b) Explain Ring Topology.

(c) Explain in brief Coaxial Cable.

P.T.O.

- (d) What is WAN ? Explain.
- (e) What is URL ? Explain.
- (f) Explain FTP protocol in brief.
- (g) What is DNS ? Explain.

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

- (a) Explain in detail Electromagnetic Spectrum.
- (b) What are the advantages and disadvantages of Star and Tree topology ?
- (c) Explain the need for layered architecture.
- (d) Explain the concept of Ethernet hardware address.
- (e) Explain in detail Ethernet Frame Format.

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

- (a) Discuss Network Security Issues.
- (b) Explain in detail Transposition Ciphers.
- (c) Explain in detail Microwave Transmission.
- (d) Describe in brief OSI reference Model.
- (e) Explain in detail Ethernet Frame Format.

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

- (a) Explain the concept of Internet Service Providers.
- (b) Describe in brief concept of IP Address.

- (c) Explain in detail Radio Transmission.
 - (d) Explain TCP/IP reference model in detail.
 - (e) Explain concept of Collision detection and recovery.
5. Write short notes on any *three* of the following (5 marks each) : 15
- (a) Fiber Optics cable
 - (b) Bluetooth
 - (c) Extranet
 - (d) HTTP
 - (e) Digital Signature.

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GK—32—2023

FACULTY OF SCIENCE

BCA (Fifth Semester) EXAMINATION

APRIL/MAY, 2023

(CBCS/Revised Pattern)

COMPUTER APPLICATION

(Mobile Application Development)

(Friday, 28-4-2023)

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 :

15

(a) Define the Android Manifest.xml.

(b) Discuss the Android architecture.

(c) Explain intent.

(d) Discuss the grid view control.

(e) Explain input event.

P.T.O.

(f) Explain 3D graphics.

(g) Bluetooth.

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

(a) Explain activity life cycle with a suitable diagram.

(b) Discuss Android features.

(c) Explain Android emulators.

(d) Discuss the Android Application Framework.

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

(a) Explain application template in detail.

(b) What is Menu ? How is it used in program ? Explain.

(c) Write a program in Android to use the concepts of Button control.

(d) What is Services ? Explain the types of Android services.

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

(a) Write the methods of Media Player Class.

(b) How to implement Zoom In or Zoom Out application in Android.

(c) Write a program to Fade in Fade out animation effect to Android App.

(d) Discuss the 3D graphics with a suitable example.

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5. Answer any *three* of the following :

15

- (a) Explain SQLite Databases.
- (b) Explain Wi-Fi Connectivity.
- (c) What is GPS ? How to find the current location using GPS ?
- (d) Explain JSON Parsing.

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FACULTY OF SCIENCE AND TECHNOLOGY

BCA (Third Year) (Fifth Semester) EXAMINATION

APRIL/MAY, 2023

(CBCS/Revised Pattern)

COMPUTER APPLICATION

Paper BCA-501

(System Analysis and Design)

(Thursday, 20-4-2023)

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 :

15

(a) Define System and explain concept of system.

(b) What is an initial investigation ?

(c) Explain feasibility study with technical.

P.T.O.

- (d) Explain decision tree in detail.
- (e) Explain dimensions of Planning in system analysis.
- (f) Define the term “Data Dictionary”. Give an example.
- (g) Explain HIPO charts.

2. Attempt any *three* of the following :

15

- (a) Describe system development Life-cycle and explain its various phases.
- (b) Explain physical and abstract system.
- (c) Explain Cost/Benefit Analysis.
- (d) Explain elements of system.
- (e) Explain file structures and organization.

3. Attempt any *three* of the following :

15

- (a) Explain the characteristics of system in detail.
- (b) What is the role of a Systems Analyst ? Explain.
- (c) Explain manmade information system in detail.
- (d) Explain input/output form design in detail.
- (e) Explain flow charts of any system.

4. Attempt any *three* of the following :

15

- (a) Explain fact finding process and techniques.
- (b) Explain basis for planning in system analysis.

- (c) What are Gantt Charts ? Explain in detail.
- (d) Explain Operational and Economic Feasibilities.
- (e) Explain an open and closed system in detail.

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

15

- (a) Data flow diagram
- (b) IPO charts
- (c) Pseudo codes
- (d) Objectives of database design
- (e) Decision tables.

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FACULTY OF SCIENCE AND TECHNOLOGY

BCA (Third Year) (Fifth Semester) EXAMINATION

APRIL/MAY, 2023

(CBCS/Revised Pattern)

COMPUTER APPLICATION

Paper AK-15

(Web Development and PHP Programming)

(Monday, 24-4-2023)

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 features of PHP in brief.

(b) Explain if-else statement in PHP.

(c) Explain Constants in PHP.

P.T.O.

- (d) Explain database terms in MySQL.
- (e) Explain While Loop in PHP.
- (f) Discuss the concept of Constructor in PHP.
- (g) What is Overloading in PHP ? Explain.
2. Attempt any *three* of the following (5 marks each) : 15
- (a) What is PHP ? Explain how to add PHP script in web pages with example.
- (b) Explain Expressions in PHP.
- (c) Explain how to define a function and call a function in PHP with example.
- (d) Explain any *five* MySQL commands in brief.
- (e) Explain Connecting to MySQL and Selecting the Database using PHP-MySQL function.
3. Attempt any *three* of the following (5 marks each) : 15
- (a) Explain Implicit and Explicit Casting in PHP.
- (b) Explain various data types in MySQL.
- (c) Explain the use of Include() and Require() in PHP with example.
- (d) Explain any *five* Date and Time Functions in PHP.
- (e) Explain how to handle HTML Form data in PHP with example.

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

- (a) Explain data types in PHP.
- (b) Explain the concept of Classes and Objects in PHP with example.
- (c) Write a PHP program to create an array, insert elements into an array, access that elements from array and display it on web page.
- (d) What is MySQL ? Explain in brief.
- (e) Explain any *five* array functions in PHP.

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

- (a) String functions in PHP
- (b) Switch statement in PHP
- (c) Inheritance in PHP
- (d) Executing Simple Queries
- (e) Comments in PHP.