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# ARKA JAIN University, Jharkhand

4th Semester Final Examination – 2018-19

Subject : Web Programming

Course: BCA/BSc-IT

Time: 3 Hours

Full Marks: 70

Pass Marks: 28

- 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 compulsory.
- **Part- B** contains **SIX** questions out of which **FOUR** questions are to be answered.
- **Part- C** contains **SIX** questions out of which **THREE** questions are to be answered.

## PART A

Q1.) All questions are compulsory:-

A] Objective Answer Type (10x1=10)

- What should appear at the very end of your JavaScript?
  - The `</script>`
  - The `<script>`
  - The END statement
  - None of the above
- What is the correct JavaScript syntax to write "Hello World"?
  - `System.out.println("Hello World")`
  - `println ("Hello World")`
  - `document.write("Hello World")`
  - `response.write("Hello World")`
- To refer to an external CSS file within an HTML document, use:
  - `<CSS ... > ... </CSS>`
  - `<SCRIPT ... >... </SCRIPT>`
  - `<LINK ... >... </LINK>`
  - `<STYLE ... >... </STYLE>`
  - None of these
- Which of the looping statements is/are supported by PHP?
  - for loop
  - while loop
  - do-while loop
  - foreach loop
  - (i) and (ii)
  - (i), (ii) and (iii)
  - All of the mentioned
  - None of the mentioned

2-c-y C

v) The attack which involves the insertion of malicious code into a page frequented by other users is known as.

- a) basic sql injection
- b) advanced sql injection
- c) cross-site scripting
- d) scripting

vi) When you use the `$_POST` variable to collect data, the data is visible to.

- a) none
- b) only you
- c) everyone
- d) selected few

vii) Which variable is used to collect form data sent with both the GET and POST methods?

- a) `$_RESPONSE`
- b) `$_BOTH`
- c) `$REQUEST`
- d) `$_REQUEST`

viii) Which one of the following should not be used while sending passwords or other sensitive information?

- a) GET
- b) POST
- c) REQUEST
- d) NEXT

ix) To which object does the location property belong

- a) window
- b) position
- c) element
- d) location

x) The `decodeURIComponent()` is defined by

- a) Server-side Javascript
- b) Client-side Javascript
- c) Both server-side & client-side javascript
- d) none of the above

**B] Short Answer Type (5x2=10)**

- i) Differentiate between session and cookie.
- ii) Differentiate between `slice()` and `substring()` methods of javascript String.
- iii) What are `<article>` and `<aside>` tags used for?
- iv) What is the CSS float property used for and what values can it take?
- v) Define browser.

## PART B

**Q2.) Answer any four:**

**(4x5=20)**

- i) How do margin, border and padding sit together in the box model.
- ii) Differentiate between client side scripting and server side scripting.
- iii) Explain the usage of these form elements : <button>,<input>,<select>,<textarea>,<label>.
- iv) With the help of a diagram explain DOM.
- v) State the usage of below methods:
  - a) ceil(x)
  - b) decodeURIComponent()
  - c) getElementById()
  - d) setCookie()
  - e) getUTCMilliseconds()
- vi) How many scalar datatypes are there in PHP? Explain each.

## PART C

**Answer any Three:**

**(3x10=30)**

**Q3.)**What do you understand by superglobals in PHP. Explain the below superglobals.

- a) \$\_SERVER
- b) \$\_REQUEST
- c) \$\_FILES
- d) \$\_POST

**Q4.)**WAP in PHP to check whether a number is Armstrong or not.

**Q5.)**Write a javascript code to set and get a cookie "username".

**Q6.)**Write a program in JavaScript to create a 'person' object with attributes firstName, lastName, id and the fourth attribute 'fullname' which is a function that returns the fullname of the person object. (adding methods to objects demonstration).

**Q7.)**What do you understand by Prepared Statements. With the help of a PHP program insert multiple rows in a table demonstrating the usage of prepared statement.

**Q8.)** WAP in PHP to create a table **Student(id,name,subject)** in MySQL.



# ARKA JAIN University, Jharkhand

4<sup>th</sup> Semester Final Examination – 2019

Subject: Computer Graphics and Animation

Course: BCA & B.Sc IT

Time: 3 Hours

Full Marks: 70

Pass Marks: 28

- 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 compulsory.
- **Part- B** contains **SIX** questions out of which **FOUR** questions are to be answered.
- **Part- C** contains **FIVE** questions out of which **THREE** questions are to be answered.

## PART A

Q1). All questions are compulsory

A] Multiple Choice Questions:

(10x1=10)

- \_\_\_\_\_ is the process of producing, manipulating and storing images and animations of objects.
  - Computer Graphics
  - Bitmap Graphics
  - Interactive Graphics
  - Non-Interactive Graphics
- Which of the following are the applications of computer graphics?
  - Presentation graphics
  - Entertainment
  - CAD
  - All of these
- \_\_\_\_\_ contains the images created by the scan-conversion and raster operations.
  - CPU
  - Frame Buffer
  - Video Controller
  - Display processor
- LCD stands for \_\_\_\_\_.
  - Liquid Crystal Diode
  - Liquid Crystal Display
  - Light Cathode Display
  - Light Crystal diode
- Which of the following are the adverse effects of scan conversion?
  - Aliasing
  - Staircase
  - Unequal brightness
  - All of these
- Clipping window is also known as \_\_\_\_\_.
  - Coordinate clipper
  - Clipping coordinates
  - Clipping ratio
  - Clipping region
- Translation, rotation, and Scaling are the basic \_\_\_\_\_.
  - Coordinates
  - Position Vectors
  - Transformations
  - Representations

- viii. Which of the following is not an animation technique?
- Anticipation
  - Actors
  - Timing
  - Arcs
- ix. Which of the following is a type of animation language?
- Scripting Systems
  - Key frame System
  - Parameterized systems
  - All of these
- x. \_\_\_\_\_ is an animation technique that is used to transform one image into another.
- Transformation
  - Scaling
  - Morphing
  - Kinematics

**B] Very Short question**

(5x2=10)

- Define VDU.
- What is Foreshortening?
- Applications of Computer Graphics.
- Discuss beam penetration method.
- Explain Wire Frame model.

**PART B**

**Q2). Answer any four:**

(4x5=20)

- What do you mean by interactive computer Graphics?
- What is video conferencing? Discuss the challenges related to such facilities.
- Explain: (A). Standard motions in key frame animation, (B) Image synthesis.
- What is the necessity for 3D clipping algorithm? Explain any one 3D clipping algorithm.
- Consider the square A (1, 0) B (0, 0) C (0, 1) D (1, 1). Rotate the square ABCD by 45° clockwise about A (1, 0).
- Explain how virtual-reality systems can be used in design applications. What are some other applications for virtual-reality systems?

**PART C**

**Answer any three:**

(3x10=30)

- Q3). What is composite transformation matrix? Explain it with suitable equations for translation, scaling and rotation.
- Q4). What are the steps involved in the design of animation sequence? Explain with suitable Examples.
- Q5). With respect to the perspective projection, define the following terms:
- Perspective foreshortening.
  - Vanishing point.
  - Principal vanishing points.
- Q6). What is a color model? What is the difference between the Y in CMY and the Y in YIQ?
- Q7). Write Cohen Sutherland line clipping algorithm? Use the Cohen Sutherland algorithm to clip line P1 (70, 20) and P2 (100, 10) against window lower left hand corner (50, 10) and upper right hand corner (80, 40).



# ARKA JAIN University, Jharkhand

4th Semester Final Examination – 2018-19

Subject : Software Engineering

Course: BCA

Time : 3 Hours

Full Marks : 70

Pass Marks: 28

- 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 compulsory.
- **Part- B** contains **SIX** questions out of which **FOUR** questions are to be answered.
- **Part- C** contains **SIX** questions out of which **THREE** questions are to be answered.

## Set I

### PART A

Q.1) All questions are compulsory

A) Multiple Choice Questions :

(10x1=10)

- Which is the first step in the software development life cycle ?
  - Analysis
  - Design
  - Problem/Opportunity Identification
  - Development and Documentation
- A step by step instruction used to solve a problem is known as
  - Sequential structure
  - A List
  - A plan
  - An Algorithm
- Which one of the following models is not suitable for accommodating any change?
  - Build & Fix Model
  - Prototyping Model
  - RAD Model
  - Waterfall Model
- The two dimensions of spiral model are
  - diagonal, angular
  - radial, perpendicular
  - radial, angular
  - diagonal, perpendicular
- RAD stands for
  - Relative Application Development
  - Rapid Application Development
  - Rapid Application Document
  - None of the mentioned

- vi) Which of the following term describes testing?
  - a) Finding broken code
  - b) Evaluating deliverable to find errors
  - c) A stage of all projects
  - d) None of the mentioned
- vii) White Box techniques are also known as
  - a) Design based testing
  - b) Glass box Testing
  - c) Error guessing technique
  - d) None of the mentioned
- viii) CLSS stands for
  - a) conveyor line sorting system
  - b) conveyor line sorting software
  - c) conveyor line sorting speed
  - d) conveyor line sorting specification
- ix) Which of the following is not a direct measure of SE process?
  - a) Efficiency
  - b) Cost
  - c) Effort Applied
  - d) All of the mentioned
- x) Which requirements are the foundation from which quality is measured?
  - a) Hardware
  - b) Software
  - c) Programmers
  - d) None of the mentioned

**B] Very Short question**

- a) What is Software Engineering?
- b) What is SRS?
- c) List down the steps to be followed for User Interface Design.
- d) Write down the seven principles of Software testing.
- e) What do you mean by Software Quality Assurance?

(5x2=10)

**PART B**

**Q2). Answer any four:**

(4x5=20)

- i) What is a SDLC? Explain in brief.
- ii) Highlights the activities in Project Planning.
- iii) Discuss about User Interface Design of a software with an example and neat sketch.
- iv) What is Software Testing? Explain two types of Software testing with neat diagram.
- v) Explain the importance of scheduling activity in software project planning.
- vi) Distinguish between verification and validation.

### PART C

Answer any three:

(3x10=30)

Q.3) Explain Water Fall Model with neat diagram. Write down the advantages and disadvantage of Water fall model.

Q.4) What is Software maintenance? Explain the software maintenance life cycle

Q.5) Explain the different ways for Software improvement process.

Q.6) What is software cost estimation? Explain COCOMO model in Software cost estimation.

Q.7) What is software metrics? Explain the characteristics of Software metrics.

Q.8) Explain CMMI process improvement framework.





# ARKA JAIN University, Jharkhand

~~4th~~ Semester Final Examination - 2018-19

Subject : Mobile Application Development

Course: BCA/B.Sc(IT)

Time : 3 Hours

Full Marks : 70

Pass Marks: 28

- 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 compulsory.
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- **Part- C** contains **SIX** questions out of which **THREE** questions are to be answered.

## PART A

Q.1) All questions are compulsory

A] Multiple Choice Questions :

(10x1=10)

- a) Which are the screen densities in Android?
- low density
  - medium density
  - extra high density
  - all of the above
- b) What are the Direct subclasses of Activity?
- ListActivity
  - ActivityGroup
  - FragmentActivity
  - all the above
- (c) Which component is not activated by an Intent?
- activity
  - services
  - contentProvider
  - broadcastReceiver
- (d) Parent class of Activity?
- object
  - context
  - activityGroup
  - contextTheme Wrapper
- (e) Once installed on a device, each Android application lives in \_\_\_\_\_?
- device memory
  - external memory
  - security sandbox
  - none of the above
- (f) Which one is NOT related to fragment class?
- dialogFragment
  - listFragment
  - preferenceFragment
  - cursorFragment

200X

- (g) What is the difference between Activity context and Application Context?
- The Activity instance is tied to the lifecycle of an Activity. while the application instance is tied to the lifecycle of the application,
  - The Activity instance is tied to the lifecycle of the application, while the application instance is tied to the lifecycle of an Activity.
  - The Activity instance is tied to the lifecycle of the Activity, while the application instance is tied to the lifecycle of an application.
  - none of the above
- (h) You can shut down an activity by calling its \_\_\_\_\_ method
- onDestory()
  - finishActivity()
  - finish()
  - none of the above
- (i) Which of these are not one of the three main components of the APK?
- Dalvik Executable
  - Resources
  - Native Libraries
  - Webkit
- (j) What runs in the background and doesn't have any UI components?
- Intents
  - Content Providers
  - Services
  - Applications

**B] Very Short question**

**(5 x 2 = 10)**

- What is a view in Android?
- What is an activity in Android?
- What is a content provider?
- What is Android Manifest.xml file?
- When would you use a spannable with an EditText field?

**PART B**

**Q.2). Answer any four:**

**(4x5=20)**

- What are the different views in Android?
- How a spinner different from the other list controls?
- Explain the 'Service' component in Android?
- What is Dalvik Virtual Machine?
- Explain Adapters.
- What is SQLite? Explain its features

**PART C**

**Answer any three:**

**(3x10=30)**

Q.3) Explain the application life cycle of an activity.

Q.4) Explain the structure of Android content URI and MIME Types.

Q.5) Explain Android Fragment Lifecycle with suitable diagram.

Q.6) Explain list view control and how data are managed?

Q.7) Explain different UI Screen Components.

Q.8) Explain Android Widgets with examples.



# ARKA JAIN University, Jharkhand

4th Semester Final Examination – 2018-19

Subject: Financial Accounting

Time: 3 Hours

Course: BCA

Full Marks: 70

Pass Marks: 28

- 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 compulsory.
- **Part- B** contains **Six** questions out of which **Four** questions are to be answered.
- **Part C** contains **Six** questions out of which **Four** questions are to be answered.

## PART A

### Q.1) A) Multiple Choice Questions

(10x1=10)

i).The accounting process involves in recording:

- a) Quantifiable economic event
- b) Non quantifiable economic event
- c) All of them
- d) None of them

ii. Identify the correct sequence of accounting process

- a) Communicating→Recording→Identifying
- b) Recording→Communicating→Identifying
- c) Identifying→communicating→recording
- d) Identifying→recording→communicating

iii. Financial accounting provides financial information to all of the following external users except:

- a) Government agencies
- b) investors
- c) Creditors
- d) Managers

iv. An asset possesses which of the following?

- a) Future economic benefits for the business
- b) All kind of benefits for the business
- c) Expenses for the business
- d) Merits and Demerits for the business

v. Payment of rent expenses is recorded on which side of cash book?

- a) Receipts
- b) Payments
- c) Income
- d) Expense

vi. An entry which is made on both sides of a cash book is called

- a) Cash entry
- b) Contra entry
- c) Payment entry
- d) Compound entry

vii. \_\_\_\_\_ is the common base for preparing a trial balance

- a) Ledger accounts
- b) General Journal
- c) Specialized journals
- d) Balance sheet

viii. Trial balance is commonly prepared

- a) Frequently during the year
- b) At the end of an accounting period
- c) At the end of a month
- d) At the end of a year

ix. Bank reconciliation statement is the comparison of a bank statement (sent by bank) with the \_\_\_\_\_ (prepared by business)

- a) Cash receipt journal
- b) Cash payment journal
- c) Cash book
- d) Financial statements

x. Bank charges amounting to \$5000 was not entered in the cash book. Identify the correct adjustment in cash book

- a) Bank charges will be debited in cash book
- b) Bank charges will be added to cash book balance
- c) Bank charges will be credited in cash book
- d) Bank charges need no adjustment in cash book

### B) Short Question

(2x5=10)

- i) What do you mean by accounting?
- ii) How would you classify assets?
- iii) When we purchase a good on credit what will be Journal entry?
- iv) How will you treat drawings in the Balance Sheet?
- v) What is depreciation?

## PART B

**Q.2) Answer any Four:**

**(4x5=20)**

- i) How is a Trial Balance Prepared? Explain with an example.
- ii) Explain the 2 methods of Depreciation.
- iii) How would you classify the accounts? Explain with examples.
- iv) An asset values Rs 1,00,000 at the time of purchase with a salvage value of Rs 20,000. The asset has an useful life of 10 years. Calculate the depreciation to be charged on the asset.
- v) Pass the Journal Entry for the following transactions-
  - a) Goods distributed as free samples Rs 500
  - b) Goods given as charity Rs 1000
  - c) Goods withdrawn for personal use -Rs 5000
  - d) Cash of Rs 1000 withdrawn for domestic use.
  - e) Depreciation charged on furniture is Rs 1000
- vi) Classify the following items into assets ,liabilities, Incomes & expenses
  - a) Capital
  - b) Goodwill
  - c) Land
  - d) Rent received
  - e) Wages

## PART C

Answer Any three

(3x10=30)

Q.3) Discuss any 5 concepts of Accounting.

Q.4) Who are the external Users of Accounting

Q.5) With imaginary figures prepare a Trading & Profit & loss account for a concern and calculate their profit or Loss.

Q.6) Mr. A purchased a second hand machinery on 1.01.19 for Rs 2,00,000 and spent Rs 20,000 on transportation and Rs. 30,000 on installation. The firm follows the calendar year and depreciation is charged @10% on WDV basis .Calculate the depreciation for 5 years from the date of purchase.

Q.7) From the following figures prepare a Trial Balance:-

Sl No	Particulars	Amount
1.	Fixed Assets	Rs 66000
2.	Capital	Rs 80000
3.	Bank Overdraft	Rs 10000
4.	Bank Loan	Rs 5000
5.	Investments	Rs 28000
6.	Reserve	Rs 5000
7.	Bad Debts	Rs 2000
8.	Salary	Rs 4000
9.	Purchases	Rs 25000
10.	Bills Payable	Rs 1000
11.	Bills Recievable	Rs 1000.
12.	Purchase Return	Rs 500
13.	Sales Return	Rs 1500
14.	Sales	Rs 26000

Q.8) On 29<sup>th</sup> Feb, 2016 Cash Book of Both Gaya Traders showed a Cash Book Balance of Rs. 45000. But the balance of Passbook did not agree with this on verification the following facts emerged

- On February cheques for Rs. 30,000 were deposited into bank but only cheques for Rs 25,000 were collected by the bank.
- In Feb, cheques for Rs 40,000 were issued out of which a cheque for Rs 10,000 presented for payment in march
- A bill of exchange for Rs 15,000 was discounted from the bank was dishonored on 26<sup>th</sup> Feb, 2016.
- The bank had paid Rs 2000 for insurance but it was not recorded in the Cashbook.
- On 29<sup>th</sup> Feb, a customer paid Rs 6000 directly into the bank which was not entered into the cashbook.
- Bank charged commission Rs 2000 but it was not recorded in the cash book.

Prepare a Bank Reconciliation Statement taking the above mentioned points into consideration.