



**ARKAJAIN**  
University  
Jharkhand

34

**5th Semester End Term Examination: 2022-23**

**Subject** : Mobile Application Development  
**Course** : BCA  
**Full Marks** : 70  
**Roll No:** .....  
**Time** : 3 Hours.

**Instructions to the Candidates:**

- Read the question paper very carefully.
- Start writing from 2nd page onwards; Don't Write On The 1st Page Backside.
- Question Paper is divided into Three Parts -A, B & C.
- Part-A is containing 12 multiple choice questions.
- Part- B containing SIX questions out of which FOUR questions are to be answered.
- Part C containing FOUR questions out of which TWO questions are to be answered.
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**PART - A**

**Multiple Choice Questions**

[12x1=12]

- 1.(i) When developing for the android OS, Java byte code is compiled into what?  
 (a) Java source code  
 (b) Dalvik application code  
 (c) Dalvik byte code  
 (d) source code
- ii) What does the .apk extension stand for?  
 (a) Application package  
 (b) Application program Kit  
 (c) Android Proprietary Kit  
 (d) Android package
- iii) What is contained within the layout xml file?  
 (a) Orientations and layouts that specify what the display looks like.  
 (b) The permissions required by the app.  
 (c) The strings used in the app.  
 (d) The code which is compiled to run the app.
- iv) What is driving force behind an android application and that ultimately gets converted into a Dalvik executable?



- (a) Java source code
- (c) the emulator

- (b) R-file
- (d) the SDK

- v) While developing Android applications, developers can test their apps on
- a) Emulator included in Android SDK
  - b) Physical Android phone
  - c) Third-party Emulators
  - d) All of the above

vi) The XML file that contains all the text that your application uses.

- (a) stack.xml
- (b) text.xml
- (c) strings.xml
- (d) string.java

vii) What runs in background and doesn't have any UI components?

- (a) Intents
- (b) Content Provider
- (c) Services
- (d) Applications

viii) What is an Activity?

- (a) A single screen the user sees on the device at one time
- (b) A message sent among the major building blocks
- (c) A component that runs in the background without any interface.
- (d) Context referring to the application environment.

xi) When an activity doesn't exist in the memory it is in.

- (a) Starting state
- (b) Loading state
- (c) Loading state
- (d) Inexistent state

x) Which of the following is NOT a state in the lifecycle of a service?

- (a) Starting
- (b) Running
- (c) Destroyed
- (d) Paused

xi) In android application which file holds to use the internet.

- (a) Create file
- (b) Manifest file
- (c) System file
- (d) None of these

xii) \_\_\_\_\_ is the first callback method invoked by the system during an Activity life-cycle?

- (a) on Start()
- (b) on Stop()
- (c) Both A & B
- (d) on Create()

PART - B

Answer any **FOUR** out of **SIX**

[4x7=28]

2. What is Intent? Explain different types of Intent?

- 3. What is Activity? With a neat diagram, explain the life cycle of activity.
- 4. What is Android Input Control? List and define its types with neat diagram.
- 5. Define loader? Explain how do you start and restart a loader.
- 6. How do you create, save and restore the shared preferences files? Explain.

7. What is the Broadcast Intent? Explain two types of Broadcast Intent.

PART - C

Answer any **THREE** out of **FIVE**

[3\*10=30]

- 8. Define shared performance. List and Explain data storage option available.
- 9. What is Firebase Realtime database? How do you run Firebase Test Lab in your app? Explain the steps.
- 10. What is AsyncTask? With a neat diagram, explain the steps for execution of AsyncTask. List out the limitation of AsyncTask.
- 11. Explain Fragment and its Life cycle with a neat diagram. List out the methods of Fragment class.
- 12. What do you mean by focus? Differentiate between clickable and focusable attributes. Explain the algorithm used for focus movement.





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**5<sup>th</sup> Semester End Term Examination: 2022-23.**

**Subject : Artificial Intelligence [IOT]**

**Course : BCA**

**Full Marks : 70**

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**PART - A**

**Multiple Choice Questions**

[12x1=12]

1 (i). How many types of quantification are there in AI?

- a)1
- b)2
- c)3
- d)4

(ii). Out of the given options, which of the following algorithms uses the least memory?

- a)DFS
- b) BFS
- c)Both A and B are the same
- d)Cannot be compared

(iii). Machines that try to imitate human intuition while handling vague information lie in the field of AI called?

- a) Functional Logic
- b) Fuzzy Logic
- c) Boolean Logic
- d) Human Logic

(iv). Which of the following are valid Machine Learning algorithms?

- a) Linear Regression
- b) K Means Clustering
- c) Naive Bayes
- d) All of the above



- (v). How is a decision reached upon by a decision tree?  
 a) No test  
 b) Single Test  
 c) Double Test  
 d) Multiple sequences of tests
- (vi). A hybrid Bayesian Network consists of?  
 a) Discrete Variables  
 b) Continuous Variables  
 c) Both A and B  
 d) None of the above
- (vii). For external action selection, which element is used in the agent?  
 a) Perceive  
 b) Performance  
 c) Actuator  
 d) None of the above
- (viii). The process of breaking an image into parts is called?  
 a) Smoothing  
 b) Segmentation  
 c) Processing  
 d) Break Down
- (ix). Which of the following plots are used to check if a data set or time series is random?  
 a) Lag  
 b) Random  
 c) Lead  
 d) None of the Mentioned
- (x). Which of the following can be used for data analysis model?  
 a) CRAN  
 b) CPAN  
 c) CTAN  
 d) All of the Mentioned
- (xi). Which of the following is useful way to put text, code, data, and output all in one document?  
 a) Literate statistical programming  
 b) Object Oriented programming  
 c) Descriptive programming  
 d) All of the Mentioned
- (xii). Which of the following way is required to make work reproducible?  
 a) keep track of things  
 b) Save output  
 c) Save data in proprietary formats  
 d) None of the Mentioned

PART - B

Answer any FOUR out of SIX

[4x7=28]

- What do you understand by Artificial Intelligence? How does an AI algorithm work?
- How AI, Machine Learning and Deep Learning differ from each other. What are the types of AI?

- What is Learning agent ? Why do we need Artificial Intelligence?
- What are the Approaches to knowledge representation? What is "game state"?
- How does Breadth-first Search algorithm work?
- List out the drawbacks of Semantic Knowledge Representation? What are the various types of Knowledge Representation?

PART - C

Answer any TWO out of FOUR

[2x15=30]

- How does Depth-first Search algorithm work?
- What are the Approaches to knowledge representation? What is the requirement for Knowledge representation system?
- Draw & Explain the State-space Diagram for Hill Climbing.
- Draw & Explain Model-based reflex agent.



7. Explain two means and two variance

PART - C

Answer any TWO out of FOUR

[2x15=30]

8. Define Taguchi's Parameter Design.
9. Define ANOVA.
10. Explain Factorial Design and Fractional Factorial Design in Experiment.
11. Explain various terminologies used in Experiments.



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**5th Semester End Term Examination: 2022-23**

**Subject : Design and Analysis of Experiments [DS]**

**Course : BCA**

**Roll No: .....**

**Full Marks : 70**

**Time : 3 Hours.**

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PART - A

Multiple Choice Questions

[12x1=12]

- 1.(i) In the equation  $Y = f(X)$ , the terms X and Y are respectively?
  - a) factor, response
  - b) dependent, independent variable
  - c) response, factor
  - d) output, input
- ii) Which of the following is true?
  - a) Having more than one dependent variable allows the examination of interactions between them.
  - b) Dependent and independent variables must be same.
  - c) An experiment can have more than one dependent variable
  - d) An experiment can only have one dependent variable.
- iii) There are 30 students in each experimental condition in a 5x4 between-groups design, how many participants would be needed in total?
  - a) 600
  - b) 20
  - c) 400
  - d) 30



iv) Match the followings  
Type of variables

**Definition**

1) Those things that you might like to hold constant when a process is running.

2) Correlated with independent variables  
3) Factors that we manipulate in an experiment  
4) Factors that you are not controlling and no one is manipulating them and they are changing on their own

- a) a-4, b-2, c-3, d-1
- b) a-3, b-1, c-4, d-2
- c) a-3, b-4, c-1, d-2
- d) a-4, b-3, c-2, d-1

v) ANOVA is a statistical method of comparing the of several populations

- a) Variance
- b) Standard deviations
- c) Means
- d) All of the above

vi) To find out whether noise affects the capability to solve the assignment of Quality management, one group solve the assignment in a silent room and another group solve the assignment in a noisy room. The group solving problems in the silent room completes 22 problems in one hour and the group solving problems in the noisy room completes 15 problems in one hour. In this experiment, the independent variable is and the dependent variable is

- a) The difficulty of the problem; the noise level in the room
- b) The noise level in the room; the difficulty of the problem
- c) The noise level in the room; the number of problems solved; the noise level in the room
- d) The number of problems solved; the noise level in the room

vii) Read the following statements carefully. Mark the correct choice

**Statement 1:** Replication is the repetition of an experimental condition so that the variability associated with the phenomenon can be estimated.

**Statement 2:** Randomization is a way when there may be a factor that might be impacting your process but, you are interested in neutralising that effect.

**Statement 3:** Blocking is the process of assigning the various levels of the investigated factors to the experimental units in a random fashion.

- a) Statement 1 and 2 is correct
- b) Only statement 1 is correct
- c) Statement 2 and 3 is correct
- d) Only statement 2 is correct

viii) **Assertion (A):** Many statistical techniques like histograms, pareto charts, run charts, these are techniques that almost anyone can use and work force should be trained on these techniques

**Reason (R):** DOE, Regression model, significance tests and confidence interval are most advanced statistical techniques which are all used if you are trying to optimize the process

- a) Both A and R are true, and A is the followed by R
- b) Both A and R are true, but A is not followed by R
- c) A is true, But R is false
- d) Both A and R are false

ix) **Assertion (A):** When we are trying to conduct the experiments, do not run the experiments of noisy conditions; try to raise your experimental conditions in such a way, that we are able to obtain better result

**Reason (R):** We can include the noisy condition in our study, when we want noise also part of our experimental study.

- a) Both A and R are true, and A is the followed by R
- b) Both A and R are true, but A is not followed by R
- c) A is true, But R is false
- d) A is false, but R is true

x) What must we include when reporting an ANOVA?

- a) Standard deviations
- b) Means
- c) Degrees of freedom
- d) All of these

xi) Manipulating the independent variable by varying the type on the independent variable that is presented to the different comparison groups is known as \_\_\_\_\_.

- a) Amount technique
- b) Absence technique
- c) Type technique
- d) Presence technique

xii) Which of the following terms is a sequencing effect that occurs from the order in which the treatment conditions are administered?

- a) Carry-over effect
- b) Order effect
- c) Sequencing effects
- d) None of the above

**PART - B**

**Answer any FOUR out of SIX**

[4x7=28]

- 2. Explain Experiment and its characteristics.
- 3. Explain steps in Experimentation .
- 4. What is Dependent variable. Explain with example.
- 5. Explain Independent variable with proper example.
- 6. Define variance and covariance





**5th Semester End Term Examination: 2022-23**

**Subject : Cloud Computing [IOT]**

**Course : BCA**

**Full Marks : 70**

**Roll No: .....**

**Time : 3 Hours.**

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**PART - A**

**Multiple Choice Questions**

**[12x1=12]**

- 1.(i) Choose among the following which is related to services provided by the cloud.
- a) Reliability
  - b) Sourcing
  - c) Ownership
  - d) AaaS
- ii) Choose the correct IaaS provider among the following.
- a) EC2
  - b) EC1
  - c) EC10
  - d)Hybrid
- iii) Choose the correct relationship of cloud services to customers.
- a) One-One
  - b) One-Many
  - c) Many-One
  - d) Many-Many
- iv) Which of the following refers to network or internet?
- a) Cloud
  - b) Computing
  - c) CRM
  - d)Cloud Computing
- v) Which of the following is not a property of cloud computing?

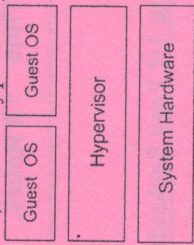


- a) virtualization
- c) scalability

vi) An application that provides for transaction overflow in a reservation system is an example of \_\_\_\_\_

- a) cloud bursting
- c) cloud servicing
- b) cloud provisioning
- d) all of the mentioned

vii) Which type of Hypervisor is shown in the following figure?

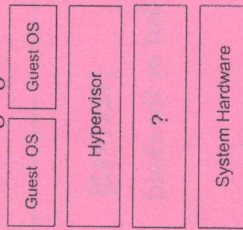


- a) Type 1
- c) None
- b) Type 2
- d) Both a & b

viii). Which of the following is another name for the system virtual machine?

- a) hardware virtual machine
- c) real machine
- b) software virtual machine
- d) none of the mentioned

ix). Which of the following should be placed in second lowermost layer for the following figure?

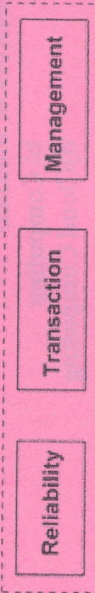


- a) Host Operating System
- c) VM
- b) Software
- d) None of the mentioned

x) In \_\_\_\_\_ the virtual machine simulates hardware, so it can be independent of the underlying system hardware.

- a) paravirtualization
- c) emulation
- b) full virtualization
- d) none of the mentioned

xi) Which of the following module of SOA is shown in the following figure?



- a) Description
- c) Business Process
- b) Messaging
- d) QOS

xii). \_\_\_\_\_ provides virtual machines, virtual storage, virtual infrastructure, and other hardware assets.

- a) IaaS
- c) PaaS
- b) SaaS
- d) All of the mentioned

**PART - B**

**Answer any FOUR out of SIX**

[4x7=28]

2. What do you mean by parallelism for single machine Computation? Why it is important?
3. Write advantages, applications & limitations of Parallel Computing.
4. What is a Relational Database? Explain
5. Design a general Customer Table with the basic required entity & explain.
6. What is a data store? What type of data can be stored in it?
7. What is APP Fabric? Which service does it provide?

**PART - C**

**Answer any TWO out of FOUR**

[2x15=30]

8. Explain in detail the various aspects for the need of virtualization in cloud computing.
9. What do you understand by GFS? Explain its features, architectures, advantages, & disadvantages.
10. Explain the cloud reference model with their functionalities managed by the user?
11. What do you understand by Building cloud computing environments? Classify & Explain.





**5<sup>th</sup> Semester End Term Examination: 2022-23.**

**Subject** : **Exploratory Data Analysis and Data Visualization Techniques**  
**Course** : **BCA**  
**Full Marks** : **70**  
**Roll No:** .....  
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**PART - A**

**Multiple Choice Questions**

- 1 (i). What is exploratory data analysis?
- a) A rigid framework by which we analyze data
  - b) An initial way by which we can get a feel for data
  - c) A type of purely quantitative method of data analysis
  - d) A set of scientific principles for analyzing data in a categorical manner
- ii. Which of the following is a principle of analytic graphics?
- a) Don't plot more than two variables at a time
  - b) Only do what your tools allow you to do
  - c) Show box plots (univariate summaries)
  - d) Integrate multiple modes of evidence
- iii. Most often, EDA relies on \_\_\_\_\_.
- a) visual techniques
  - b) assumptions
  - c) fixed models
  - d) testing for statistical significance

[12x1=12]



- a) They are typically made very quickly.
- b) They are made for formal presentations.
- c) Only a few are constructed.
- d) xes, legends, and other details are clean and exactly detailed.

- v. Which of the following is an example of a valid graphics device in R?
- a) The computer screen
  - b) A Microsoft Word document
  - c) A file folder
  - d) A png file

- vi. Bitmapmed file formats can be most useful for
- a) Plots that require animation or interactivity
  - b) Scatterplots with many many points
  - c) Plots that may need to be resized
  - d) Plots that are not scaled to a specific resolution

vii. Which of the following functions is typically used to add elements to a plot in the base graphics system?

- a) hist()
- b) plot()
- c) text()
- d) boxplot()

viii. A histogram is

- a) A bar chart.
- b) A graphic representation of the frequency distribution of a qualitative or categorical variable
- c) A graphic representation of the frequency distribution of a continuous variable
- d) An alternative to a pie chart.

ix. Which of the following gave rise to need of graphs in data analysis?

- a) Data visualization
- b) Communicating results
- c) Decision making
- d) All of the mentioned

x. Which of the following is characteristic of exploratory graph?

- a) Made slowly
- b) Axes are not cleaned up
- c) Color is used for personal information
- d) All of the mentioned

xi. Which of the following graph can be used for simple summarization of data?

- a) Scatterplot
- b) Overlaying
- c) Barplot
- d) All of the mentioned

xii. Which of the following information is not given by five-number summary?

- a) Mean
- b) Median
- c) All of the mentioned

## PART - B

### Answer any FOUR out of SIX

[4x7=28]

2. What is Exploratory Data Analysis? Write down the goal of Exploratory Data Analysis?
3. What is Covariance? Explain.
4. What is a 4 plot? Write down the importance of 4-plot?
5. During the data pre-processing step, how should one treat missing/null values? How will you deal with them?
6. Is it possible to test the probability of improving the model accuracy without using cross-validation? If yes, please explain.
7. Write a short note on (any one) - Content-based document clustering, dplyr package, Data transformation.

## PART - C

### Answer any TWO out of FOUR

[2x15=30]

8. How to perform bivariate analysis for Numerical-numerical, Categorical-Categorical, and Numerical-Categorical variables? How do you visualize website data?
9. What are the different tests that are used for verifying analysis/hypothesis for numerical-numerical, categorical-categorical, and numerical-categorical variables? What is the advantages of good data visualization?
10. Write down the steps of the Ceramic Strength analysis with EDA. Explain Lollipop chart.
11. Explain the steps of Beam Deflections analysis with EDA. Explain Area plot





**5th Semester End Term Examination: 2022-23**

**Subject** : Enterprise Java  
**Course** : BCA  
**Full Marks** : 70

**Roll No:** .....  
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**PART - A**

**Multiple Choice Questions**

[12x1=12]

- 1.(i) Which server-side component is required to be deployed on the server?  
a) EJB  
b) RMI  
c) Both A & B  
d) None of the above
- (ii). Which of the following is not true for <jsp:useBean> tag in JSP page?  
a) Locates a bean instance  
b) Stores object reference of the bean in a variable  
c) Creates an instance if fails to locate the bean instance  
d) Does not execute the body tag if any
- (iii). In the elements of Hibernate architecture is a factory of session and client of Connection Provider, It holds the second level cache (optional) of data is  
a) Session  
b) Session Factory  
c) Transaction  
d) Connection Provider
- (iv). Which session bean maintain their state between client invocations but are not required to maintain their state across server crashes or shutdowns



- a) Stateful Session Bean
- c) Singleton Session Bean

- b) Stateless Session Bean
- d) None of the above

i). What type of servlets use these methods doGet(), doPost(), doHead, doDelete(), doTrace()?

- a) Generic Servlets
- c) All of the above

- b) HttpServlets
- d) None of the above

ii). Which method in session tracking is used in a bit of information that is sent by a web server to a browser and which can later be read back from that browser?

- a) HttpSession
- c) Cookies

- b) URL rewriting
- d) Hidden form fields

iii). Which method of the request object is used to extract values of the input fields in a form when it is submitted?

- a) getParameter
- c) getValues

- b) getParameterNames
- d) putValues

iv). Which method of the servlet is/are called several times in its life?

- a) init()
- c) destroy()

- b) doPost()
- d) Both (a) and (b) above

v). How many types of session beans are available in EJB?

- a) 2
- c) 4

- b) 3
- d) 5

vi). Which method is used to send the same request and response objects to another servlet in Request Dispatcher?

- a) forward()
- c) Both A & B

- b) sendRedirect()
- d) None of the above

vii). Which statement describe about Message-Driven Beans is correct?

- a) The bean mediates between the client and the other components of the application, presenting a simplified view to the client.
- c) Message-Driven Beans are stateful

- b) An EJB 3.0 message-driven beans can itself be the client of another message-driven beans
- d) None of the above

viii). Hibernate is an?

- a) Open Source
- c) ORM

- b) Lightweight
- d) All mentioned above

## PART - B

### Answer any FOUR out of SIX

[4x7=28]

2. What do you mean by Stateful session beans, Stateless session beans and Singleton session beans?
3. What do you mean by Java Naming and Directory Interface? Explain in detail.
4. What are Sessions? Explain the Steps involved in the lifecycle of an HTTP Session?
5. What is Servlet? Explain about the lifecycle of Servlet.
6. Explain the Architecture of Hibernate with its working.
7. What is JSP? List out the Pros and Cons of JSP

## PART - C

### Answer any TWO out of FOUR

[2x15=30]

8. List out different types of Collection Operation Used in Unified EL?
9. Define Enterprise Application? With the help of a neat diagram illustrate the tiers of an Enterprise Architecture.
10. With the help of neat diagram, illustrate Lifecycle of Enterprise Java Bean?
  - a. Stateful session Bean
  - b. Stateless Session Bean
  - c. Singleton session Bean
11. Explain Cookies. How cookies are created using Servlet list out various method and syntax used to create Cookies? Also list out methods used in Cookies.





**5th Semester End Term Examination: 2022-23**

**Subject : Machine Learning With R**

**Course : BCA**

**Full Marks : 70**

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**PART - A**

**Multiple Choice Questions**

[12x1=12]

- i) Feed forward networks are used for?  
a) pattern mapping  
b) pattern association  
c) pattern classification  
d) all of the mentioned
- ii) What is supervised learning?  
a) features of group explicitly stated  
b) number of groups may be known  
c) neither feature & number of groups is known  
d) none of the mentioned
- iii) Which of the following describes R language?  
a) Free  
b) Paid  
c) Available for free trial only  
d) Testing
- iv) Which of the following is used to plot multiple histograms?  
a) multi.plot()  
b) multi.hist  
c) xyplot.multi()  
d) poly()



v) Logistic regression is:

- a) A supervised machine learning algorithm
  - b) An unsupervised machine learning algorithm
  - c) Both supervised and unsupervised
  - d) Neither supervised nor unsupervised
- vi) Which of the following option is true about k-NN algorithm?
- a) It can be used for classification
  - b) It can be used for regression
  - c) It can be used in both classification and regression
  - d) None of these
- vii) R runs on the \_\_\_\_\_ operating system.
- a) Linux
  - b) Windows
  - c) Ubuntu
  - d) Any operating system

viii) Which of the factors affect the performance of learner system does not include?

- a) Representation scheme used
- b) Training scenario
- c) Type of feedback
- d) Good data structures

ix) A perceptron adds up all the weighted inputs it receives, and if it exceeds a certain value, it outputs a 1, otherwise it just outputs a 0.

- a) True
- b) False
- c) Sometimes - it can also output intermediate values as well
- d) Can't say

x) Which of the following is true for neural networks?

- a) The training time depends on the size of the network.
- b) Neural networks can be simulated on a conventional computer.
- c) Artificial neurons are identical in operation to biological ones.
- d) All of the mentioned

xi) \_\_\_\_\_ is one type of the simplest machine learning classification algorithms that is a subset of supervised learning based on lazy learning.

- a) K-Nearest Neighbour
- b) Naive Bayes
- c) Travelling Salesman
- d) N-Queen

xii) \_\_\_\_\_ programming language is a dialect of S.

- a) B
- b) C
- c) R
- d) K

## PART - B

### Answer any FOUR out of SIX

[4x7=28]

2. Define Machine Learning. What are the different types of machine learning? Explain in brief.
3. What are the different Data Structures in R? Explain in brief.
4. Write down the history of machine learning.
5. What is Artificial Neural Network? Explain with neat diagram.
6. What the issues are of machine Learning. Explain in brief.
7. What is 'naive' in the Naive Bayes' Classifier?

## PART - C

### Answer any TWO out of FOUR

[2x15=30]

8. Describe the Checkers Learning Problem (Checkers Game) w.r.t. Tasks (T), Performance (P) and Experience (E).
9. What is Perceptron? Discuss the Perceptron training rule.
10. What do you mean by Classification? How will you know which Machine Learning algorithm to choose for your classification problem?
11. Write down the Delta rule. Under what conditions the Perceptron rule fails and it becomes necessary to apply the delta rule?





**5<sup>th</sup> Semester End Term Examination: Dec - 2022.**

**Subject : Industrial Relations and Labor Laws (HRM)**

**Course : BBA**

**Full Marks : 70**

**Roll No: .....**

**Time : 3 Hours.**

**Instructions to the Candidates:**

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**PART - A**

**Multiple Choice Questions**

[12x1=12]

1. i) Industrial relations are the relationship between -
- a) Employees and Management
  - b) Consumers and Suppliers
  - c) Employees and Consumer
  - d) Management and Consumers
- ii) Relations can be made worse by -
- a) Increase in wages
  - b) High employee retention
  - c) Improved working conditions
  - d) Lack of trust
- iii) A trade union is an organization that represents -
- a) The views and interest of workers
  - b) A group of people working towards a common aim
  - c) The aims of managers
  - d) The goals of a business
- iv) Examples of trade unions are -
- a) Industrial Tribunal
  - b) NGT
  - c) BMS
  - d) CRISIL



- v) Which one of the following a type of dispute settlement machinery?
- Adjudication
  - Agreement
  - Fast Track Court
  - Consumer Court
- vi) Which of the following is not an approach to industrial relations?
- Unitary approach
  - Pluralistic approach
  - Marxist approach
  - Employee's approach
- vii) If there is willful removal or disregard by the workman of any safety guard or other device which he knew to have been provided for the purpose of securing safety of workman,
- Employer is liable to pay compensation
  - Employer is not liable to pay compensation
  - Appropriate government is liable to pay compensation
  - The Trade Union is liable to pay compensation
- viii) A proactive industrial relations programme must cover the following decision(s) -
- Communication
  - Competence
  - Discipline and conflict
  - All of the above
- ix) A workman who is employed in an industrial establishment in the place of another workman whose name is borne on the muster rolls of the establishment is \_\_\_\_
- Temporary workman
  - Permanent workman
  - Badly workman
  - None of the above
- x) Which of the below mentioned is the duty of a conciliation officer?
- The board shall submit its report within 2 months of the date on which the dispute was referred to.
  - The court shall inquire that matters referred to it and report thereon to the appropriate government within a period of 6 months.
  - Where any industrial dispute exists or is apprehended, the conciliation officer may, or where the dispute relates to a public utility service and a notice under section 22 has been given shall hold the conciliation proceedings in the prescribed manner.
  - A workman who is employed in an industrial establishment in the place of another workman whose name is borne on the muster rolls of the establishment is \_\_\_\_
- Banking Company
  - Closure
  - Award
  - Conciliation Proceeding

xii) Which of the following statements about The Employees' Provident Funds and (Miscellaneous Provisions) Act are true?

- The Act is not applicable to cooperative societies employing less than 50 persons working with the aid of power.
- It makes provision for pension scheme, including family pension.
- There is no wage limit to be covered under the Act.
- The Act has a provision relating to Employees' Deposit-linked Insurance Scheme.

- a, b & d
- a & c
- b, c & d
- a, b & d

### PART - B

Answer any FOUR out of SIX

[4x7=28]

- Define Industrial Relations. Discuss its dimensions.
- Describe the Evolution of Industrial Relations in India.
- Discuss the Standard Grievance Handling Procedure.
- Discuss the Classification of Workmen.
- Discuss the concept and calculation of the following: -
  - Absenteeism
  - Turnover
- What do you mean by Occupation Hazards? Discuss its types.

### PART - C

Answer any TWO out of FOUR

[2x15=30]

- Enumerate various provisions of Health, Safety and Welfare of the Workmen.
- Enlist the composition of National Social Security Board and State Social Security Board.
- Enumerate various provisions of Industrial Employment.
- Discuss the various provisions of identification, classification and settlement of Industrial Disputes.





**5<sup>th</sup> Semester End Term Examination: Dec - 2022.**

**Subject : Principles of Investment Management (Finance)**

**Course : BBA**

**Full Marks : 70**

**Roll No: .....**

**Time : 3 Hours.**

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**PART - A**

**Multiple Choice Questions**

[12x1=12]

- I. i) Which of the following is not a form of dividend-
- a) Equity Dividend
  - b) Preference Dividend
  - c) Stock Dividend
  - d) None of the Above
- ii) \_\_\_\_\_ policy determines the division of earnings between payments to Shareholders and retained earnings".
- a) Stock
  - b) Investment
  - c) Dividend
  - d) None of the above
- iii) Calculate the Price of the share as per Walters Model if  $R=20\%$ ,  $K=15\%$ ,  $E=4$ ,  $D=4$ .
- a) 26.67
  - b) 27.77
  - c) 25.57
  - d) 28.67



iv) James \_\_\_\_\_ formulated this and used the dividend to optimize the wealth of the equity shareholders.

- a) Gordon
  - b) Walter
  - c) Jones
  - d) None of the Above
- v) Following is an irrelevance theory-
- a) Gordons Theory
  - b) Modigliani Millers Theory
  - c) Walters Theory
  - d) None of the Above

vi) \_\_\_\_\_ analysis is the analysis of tradeable financial instruments called Securities.

- a) Investment
- b) Security
- c) Dividend
- d) Money

vii) \_\_\_\_\_ analysis is really a logical and systematic approach to estimating the future dividends and share price it is based on the basic premise that share price is determined by a number of fundamental factors relating to the economy, industry and company.

- a) Technical
  - b) Fundamental
  - c) Company
  - d) Industry
- viii) Fundamental analysis consists of the following-
- a) Company
  - b) Industry
  - c) Economy
  - d) All of the above

ix) \_\_\_\_\_ Analysis does an assessment on demand supply factor, Permanence, Labour factor.

- a) Industry
- b) Company
- c) Economy
- d) Technical

x) Ratio analysis is a part of-

- a) Industry
- b) Company
- c) Economy
- d) Technical

xi) \_\_\_\_\_ chart is the basic tool used by the technical analyst to study the share Price movement. the prices are plotted on an XY graph where the X axis represents the trading days and Y axis denotes the prices.

- a) Price
- b) Money
- c) Security
- d) None of the Above

xii) In \_\_\_\_\_ analysis, the analyst tries to forecast the future earnings of the company because there is a strong evidence that the earnings have a direct and powerful effect upon share prices.

- a) Industry
- b) Company
- c) Economy
- d) Technical

## PART - B

### Answer any FOUR out of SIX

[4x7=28]

2. What is Investment? What are the Objectives of Investment?
3. What is Financial Market? What are the types of Financial Market?
4. Explain the concept of Risk? What the types of Risk?
5. What are the factors effecting Economic analysis
6. A 10% coupon bond has 10 year to maturity and 1000 \$ as face value. If the required rate of return for this bond is 10 %, how much does this bond sell for?
7. How do you measure risk? Explain with an example.

## PART - C

### Answer any TWO out of FOUR

[2x15=30]

8. How would you analyse a Company?

9. Mr Y extracts price of share in BCD Co Ltd for the last 9 years as given below:

Year	2011	2012	2013	2014	2015	2016	2017	2018	2019
Price	150	160	172	182	190	210	188	198	207

Compute the Annual return for Mr Y if he has made an investment in shares in the year 2010 for Rs 110

10. What is Security Analysis? Explain the term Fundamental Analysis and its types.

11. The return on individual security R1 & Market Return Rm are given below:

R1	14	18	6	12	13	14	11	6	9	8
Rm	16	20	9	8	10	9	11	18	17	15

Compute Alpha & Beta from the above.





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14/12/22 60

**5<sup>th</sup> Semester End Term Examination: Dec 2022.**

**Subject : Recruitment & Selection (HRM)**  
**Course : BBA**  
**Full Marks : 70**  
**Roll No: .....**  
**Time : 3 Hours.**

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**PART - A**

**Multiple Choice Questions**

[12x1=12]

1. i) Which among the following is an internal source of recruitment:  
a) Recommendations      b) Advertisement  
c) Retirement              d) Consultancies  
ii) Scheduling the interview involves:  
a) Sending the interview confirmation mail      b) Sending the interview reminder mail  
c) Both                      d) Either 1 or 2  
iii) Job description does not include:  
a) Skills                      b) Job title  
c) Job location              d) Working Conditions  
iv) The test to measure the applicants capacity & potential to develop and learn in the organization is:  
a) Intelligence Test              b) Aptitude Test  
c) Proficiency Test              d) Interest Test



PART - C

Answer any TWO out of FOUR

[2x15=30]

- v) The process which involves selection of candidates from different educational institutions to acquire fresh talents is:
- a) Contractual Employment
  - b) Campus Placement
  - c) Employment Agencies
  - d) Employability Exchange
- vi) The tips to be considered for an interview by an interviewer involves:
- a) 4 phases
  - b) 3 phases
  - c) 2 phases
  - d) No phases
- vii) The interviewers need to prepare their pitch.
- a) Before the interview
  - b) During the interview
  - c) After the interview
  - d) While joining
- viii) Evaluation of notes in done by interviewer
- a) Before the interview
  - b) During the interview
  - c) After the interview
  - d) While joining
- ix) The candidates rejected for a particular position can be a good fit for some other vacancy.
- a) Yes
  - b) No
  - c) May be
  - d) Don't know
- x) Follow up after the interview should be done by:
- a) Interviewee
  - b) Interviewer
  - c) Both
  - d) None
- xi) Which among the following Induction or Orientation is less time consuming?
- a) Individual
  - b) Collective
  - c) Virtual
  - d) None of the above
- xii) The full form of "PAQ" is:
- a) Power Analysis Questionnaire
  - b) Position Analysis Questionnaire
  - c) Position Administration Questionnaire
  - d) Power Administration Questionnaire

PART - B

Answer any FOUR out of SIX

[4x7=28]

2. Mention different Traditional techniques of Recruitment and also mention the drawbacks of this method.
3. Discuss various employment tests under Selection process.
4. Mention the various points to be kept in mind while facing a Group Discussion.
5. Mention different Modern techniques of Recruitment. Elaborate on evaluation of Recruitment.
6. What in your opinion should be the basis for Promotion: Merit or Seniority?
7. Define Exit Interview along with its significance in an organization.





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16/11/22  
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**5<sup>th</sup> Semester End Term Examination: Dec - 2022.**

**Subject : Production and Operations Management**

**Course : BBA**

**Full Marks : 70**

**Roll No: .....**

**Time : 3 Hours.**

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**PART - A**

**Multiple Choice Questions**

[12x1=12]

- i) The expected qualities of a product are
  - a) It satisfies the needs and expectations of the customer
  - b) It has a pleasing appearance and handles well
  - c) It has high reliability and functions safely over its intended life
  - d) All of the mentioned
- ii) \_\_\_\_\_ study is concerned with the determination of the amount of time required to
  - a) Method
  - b) Motion
  - c) Work
  - d) Time
- iii) The 4Ms does not include \_\_\_\_\_
  - a) Men
  - b) Material
  - c) Message
  - d) Machinery.



- iv) In which type of production system the unit cost of production is low?
- Combined production
  - Continuous production
  - Intermittent production
  - Custom production
- v) All of the following decisions fall within the scope of operations management except for
- Financial analysis
  - Design of products and processes
  - Location of facilities
  - Quality management
- vi) \_\_\_\_\_ may be defined as the ratio between output and input.
- Production
  - Productivity
  - Batch production
  - Job production.
- vii) A \_\_\_\_\_ is something which is offered to customers to satisfy their needs or wants.
- Process
  - Price
  - Promotion
  - Product
- viii) Production is the process by which raw materials and other inputs are converted in to \_\_\_\_\_.
- Finished Product
  - Services
  - Satisfaction
  - Loyalty
- ix) The competitive advantage in the production function can be achieved through \_\_\_\_\_.
- A High wastage
  - More cost
  - Higher quality
  - Lowest quantity
- x) Which of the following industries should be located near the vicinity of raw materials?
- Cycles
  - Televisions
  - Sewing machines
  - Steel mills
- xi) If all the processing equipment and machines are arranged according to the sequence of operations of a product the layout is known as
- Product layout
  - Process layout
  - Fixed position layout
  - Combination layout
- xii) The following type of layout is preferred to manufacture a standard product in large quantity
- Product layout
  - Process layout
  - Fixed position layout
  - Combination layout

## PART - B

### Answer any FOUR out of SIX

[4x7=28]

- List out basic concepts of Productivity?
- Write short notes on Continuous production?
- Define the term Quality Assurance?
- Mention the steps in Productivity cycle?
- Give the components of TQM??
- List out the factors affecting Job Design?

## PART - C

### Answer any TWO out of FOUR

[2x15=30]

- What is Inventory Control? Explain in detail the various methods of Inventory control?
- What scheduling decisions must operations managers resolve in product focused factories?
- State the objectives of work Measurement. What are its benefits?
- What is Total quality management? What are its key components?



