

**CHOICE BASED CREDIT SYSTEM SEMESTER SCHEME  
B.C.A. FOURTH SEMESTER DEGREE EXAMINATION MAY 2024**

**COMPUTER APPLICATIONS**

**Python Programming**

**Duration:2 Hours**

**Max Marks:60**

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**PART A**

**Answer any FIVE questions:**

**(5×2= 10)**

- 1) Define how to remove an item from a set.
- 2) List any two escape characters used in Python.
- 3) What is multiple Inheritance?
- 4) Give an example for nested loop in Python.
- 5) What are Lists in Python?
- 6) Mention the Logical operators in Python.

**PART B**

**Answer any FIVE questions :**

**(5×6= 30)**

- 7) What is Python shell? Explain.
- 8) Differentiate parameter and arguments in python.
- 9) Write the command to save changes to the database.
- 10) Compare Python Vs Java Programming Language.
- 11) How do you create a list in Python?
- 12) Explain various Built in data types in Python.

**PART C**

**Answer any TWO questions :**

**(2×10= 20)**

- 13) a) Explain range() function with example.      b) Explain ELSE in FOR loop.
- 14) Explain with example difference between a normal def defined function and lambda function.
- 15) With an example explain exception handling in Python.

**CHOICE BASED CREDIT SYSTEM SEMESTER SCHEME**  
**B.C.A. FOURTH SEMESTER DEGREE EXAMINATION MAY 2024**  
**COMPUTER APPLICATIONS**  
**Operating System Concepts**

Duration:2 Hours

Max Marks:60

**PART A**

Answer any FIVE questions:

(5×2= 10)

- 1) Write any two responsibilities of an operating system with respect to Protection System
- 2) Write a note on Many-to-One model in thread.
- 3) What is race condition?
- 4) List the different types of file operations that can be controlled using protection mechanisms.
- 5) Write any four file types.
- 6) Define context switch.

**PART B**

Answer any FIVE questions :

(5×6= 30)

- 7) Explain:  
a) LRU page replacement algorithm    b) Optimal page replacement algorithm
- 8) Write a note on    a) Virtual memory    b) Demand paging
- 9) Explain any two methods to avoid deadlock in the system.
- 10) Consider the following page reference string:  
1, 2, 3, 4, 5, 3, 4, 1, 6, 7, 8, 7, 8, 9, 7, 8, 9, 5, 4  
Find the page faults that occur if we use  
a) FIFO    b) Optimal page replacement algorithms using 4 frames.
- 11) Explain deadlock prevention and deadlock avoidance schemes.
- 12) Explain dynamic relocation with a neat diagram.

### PART C

Answer any TWO questions :

(2×10= 20)

- 13) Draw Gantt chart and calculate the Average Waiting Time for the following 4 processes using:
- a) First Come First Serve scheduling algorithm.
  - b) SJF scheduling algorithm.
  - c) Round Robin scheduling algorithm (Time quantum = 3ms)
- Process P1 P2 P3 P4 Burst Time 1 8 3 4
- 14) a) Write a note on dispatcher.  
b) Explain preemptive and nonpreemptive scheduling.
- 15) Explain the implementation of semaphores using wait() and signal() semaphore operation.

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**CHOICE BASED CREDIT SYSTEM SEMESTER SCHEME**  
**FOURTH SEMESTER B.A./B.Sc./B.Com./B.B.A./B.C.A. DEGREE EXAMINATION**  
**MAY 2024**  
**Financial Education and Investment Awareness**

**Duration: 30 Min.****Max Marks:30**

1. \_\_\_\_\_ refers to an individual's unspent earnings
  - a) Income
  - b) Earnings
  - c) Savings
  - d) Investment
  
2. \_\_\_\_\_ is the rate of increase in prices over a given period of time.
  - a) Attrition
  - b) Inflation
  - c) Repo
  - d) Devaluation
  
3. \_\_\_\_\_ is defined as the amount of money that an individual or household has to spend or save after income taxes have been deducted.
  - a) Savings
  - b) Unspent Income
  - c) Income After Tax
  - d) Disposable Personal Income
  
4. \_\_\_\_\_ refers to the minimum reserve requirement that needs to be maintained by commercial banks in the nation
  - a) Statutory Liquidity Ratio (SLR)
  - b) Cash Reserve Ratio (CRR)
  - c) Minimum Reserve Ratio
  - d) Liquidity Ratio
  
5. In which year was the RBI Act enacted?
  - a) 1934
  - b) 1947
  - c) 1950
  - d) 1981
  
6. Sukanya Samriddhi Account(SSA) can be opened by the guardian in the name of girl child below the age of \_\_\_\_\_ -
  - a) 18 years
  - b) 21 years
  - c) 1 year
  - d) 10 years
  
7. Net Margin Ratio = Net Profit/ \_\_\_\_\_
  - a) Total sales
  - b) Net Sales
  - c) Gross Sales
  - d) Average Inventory

8. Liquid Ratio = \_\_\_\_\_ / Current Liabilities
- Current Assets
  - Liquid Assets
  - Capital Assets
  - Net Assets
9. 9. If you invest Rs.5,00,000/- at an interest rate of 9% p.a. compounded annually, how many years will it take for the investment to double?
- 9
  - 2
  - 8
  - 7
10. \_\_\_\_\_ is the term used to describe the future needs of an individual that require funding.
- Financial Planning
  - Financial Objective
  - Financial Goal
  - Goal Value
11. The act of spreading your investments to various asset class in order to reduce the exposure level to anyone is called \_\_\_\_\_
- Divestment
  - Diversification
  - Division of labour
  - Directional trade
12. Who controls the Capital Market in India?
- SEBI
  - NABARD
  - RBI
  - SBI
13. Which of the below does not have anything to do with a stock exchange?
- Initial Public Offering
  - Net Asset Value
  - Legal Processes Outsourcing
  - National Stock Exchange
14. Sukanya Samriddhi Yojana Scheme was launched in the year
- 2022
  - 2018
  - 2015
  - 2008
15. What is the function of stock exchange?
- Safety
  - Liquidity
  - Speculation
  - All of the above

16. . BSE Stands for
- a) Bombay Stock Exchange
  - b) Block Securities Exchange
  - c) Balanced Share Exchange
  - d) None of the above
17. \_\_\_\_\_ is the decision that comes out of the risk profile of the individual.
- a) Strategic Asset Allocation
  - b) Tactical Asset Allocation
  - c) both
  - d) None
18. T-Bills are an example of
- a) Money Market Securities
  - b) Capital Market Securities
  - c) Conservative Market Securities
  - d) Aggressive Market Securities
19. In stock market what does "Bears" indicate.
- a) The overall impact for rise in prices of stock
  - b) The overall impact for fall in prices of stock
  - c) The overall impact for constant in prices of stock
  - d) The overall impact for change in prices of stock
20. Equity Linked Savings Scheme (ELSS) are tax savings scheme. True or False?
- a) True
  - b) False
21. Treynor Ratio= (Rs Minus \_\_\_) ÷ Beta
- a) Rs
  - b) Rd
  - c) Re
  - d) Rf
22. \_\_\_\_\_ refers to the value of each unit of scheme
- a) Net Asset Value
  - b) Net Present Value
  - c) Gross Value
  - d) Gross Profit
23. ETF Stands for
- a) Exchange Traded Fund
  - b) Exchange Traded Finance
  - c) Exchange Taxable Finance
  - d) Earning Traded Fund

24. Debt scheme invest in \_\_\_\_ securities
- a) Fixed income securities
  - b) Equity
  - c) Debt scheme
  - d) Sectoral
25. \_\_\_\_\_ refers to the value of each unit of the scheme
- a) ETF
  - b) Fund of funds
  - c) Net Asset Value
  - d) Portfolio
26. The Mutual Fund scheme that has fixed Maturity period is called as
- a) Open-ended schemes
  - b) Interval Schemes
  - c) Close-ended schemes
  - d) Passive Funds
27.  $NAV = \frac{\text{Unit-holders funds in the scheme} + \text{_____}}{\text{_____}}$
- a) Scheme expenses
  - b) Dividend Income
  - c) Number of outstanding units
  - d) Valuation losses
28. \_\_\_\_\_ is based on Capital Asset Pricing Model (CAPM)
- a) Standard Deviation
  - b) Beta
  - c) Alpha
  - d) Tracking error
29. What is the purpose of financial planning?
- a) To maximize income and minimize expenses
  - b) To understand the relationship between income and expenses
  - c) To meet current and future financial needs effectively
  - d) To eliminate all liabilities and acquire assets
30. What is the purpose of a personal or household budget?
- a) To restrict spending and limit expenses
  - b) To track income and expenses for financial planning
  - c) To save money for a rainy day
  - d) To invest in building wealth

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