

(6 pages)

Reg. No. : .....

Code No. : 21025

Sub. Code : GMCA 61

B.C.A. (CBCS) DEGREE EXAMINATION,  
APRIL 2018.

Sixth Semester

Computer Application — Main

OPERATING SYSTEM

(For those who joined in July 2012 – 2015)

Time : Three hours

Maximum : 75 marks

PART A — (10 × 1 = 10 marks)

Answer ALL questions.

Choose the correct answer :

1. \_\_\_\_\_ software is the heart of computer
  - (a) System
  - (b) Application
  - (c) Operating System
  - (d) Client/server

2. Now a days the handheld systems are in the form of \_\_\_\_\_
  - (a) Laptop
  - (b) Palmtop
  - (c) Tablets
  - (d) all of these
3. Program execution is also refer as \_\_\_\_\_
  - (a) thread
  - (b) process
  - (c) command execution
  - (d) all of these
4. Which is most important in scheduling criteria
  - (a) CPU Utilisation
  - (b) Waiting time
  - (c) Response time
  - (d) average waiting time
5. To detect dead lock \_\_\_\_\_ is used?
  - (a) data flow diagram
  - (b) flow chart
  - (c) resource allocation graph
  - (d) system chart

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6. When two process access the same resource at a time \_\_\_\_\_ may occur
- (a) dead lock
  - (b) race condition
  - (c) hardware lock
  - (d) mutual exclusion
7. \_\_\_\_\_ scheme the physical memory is splited into equal parts
- (a) paged
  - (b) segments
  - (c) demand paged
  - (d) all of these
8. Which of the following is not a device?
- (a) virtual memory
  - (b) cache
  - (c) RAM
  - (d) ROM
9. \_\_\_\_\_ is the collection of related information
- (a) File
  - (b) Folder
  - (c) Disk
  - (d) System
10. \_\_\_\_\_ is the process of changing jobs from primary to secondary storage vice versa
- (a) Swap
  - (b) Free space management
  - (c) Allocation
  - (d) None of these

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PART B — (5 × 5 = 25 marks)

Answer ALL questions choosing either (a) or (b).

Each answer should not exceed 250 words.

11. (a) Describe the services of operating systems.

Or

- (b) Compare and Contrast Desktop and Multiprocessor system.

12. (a) Describe process scheduling.

Or

- (b) Explain CPU scheduling criteria.

13. (a) Give a view on the methods for handling deadlock.

Or

- (b) Explain dining philosophers problem.

14. (a) Write short notes on thrashing.

Or

- (b) State the functions of memory management. List out various memory management schemes.

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[P.T.O.]





15. (a) How to manage swap space? Discuss.

Or

(b) Explain Directory Structure.

PART C — (5 × 8 = 40 marks)

Answer ALL questions choosing either (a) or (b).

Each answer should not exceed 600 words.

16. (a) Describe distributed system.

Or

(b) Discuss clustered system.

17. (a) Explain algorithm evaluation.

Or

(b) Discuss Interprocess communication.

18. (a) How can you detect and recover deadlock?

Or

(b) Describe deadlock system model.

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19. (a) Explain the concept of demand paging.

Or

(b) Explain segmentation.

20. (a) Describe various allocation methods.

Or

(b) Discuss about disk attachment and stable storage.

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[P.T.O.]





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Sub. Code : GMCA 62

B.C.A. (CBCS) DEGREE EXAMINATION,  
APRIL 2018.

Sixth Semester

Computer Application — Main

CYBER SECURITY

(For those who joined in July 2012 – 2015)

Time : Three hours

Maximum : 75 marks

PART A — (10 × 1 = 10 marks)

Answer ALL questions.

Choose the correct answer :

1. The initial phase of System development life cycle is
  - (a) Analysis
  - (b) design
  - (c) requirement specification
  - (d) system specification

2. How many components are there in information system?
  - (a) 4
  - (b) 5
  - (c) 6
  - (d) 7
3. \_\_\_\_\_ risk control strategy accepts the identified risk and deploys no defence strategy
  - (a) defense
  - (b) transferal
  - (c) mitigation
  - (d) acceptance
4. \_\_\_\_\_ extends a private network such as the internet
  - (a) Intranet
  - (b) Extranet
  - (c) VPN
  - (d) WAN
5. IPS stands for
  - (a) Intrusion Prevention System
  - (b) Intrusion Prevention Software
  - (c) Intrusion Protection System
  - (d) Intrusion Protecting Software





6. Which of the following access control device is mostly used now?
- (a) biometric reader
  - (b) Mag Stripe Reader
  - (c) Keypad Reader
  - (d) Mag-lock
7. The famous mobile system is
- (a) Android
  - (b) IOS
  - (c) Blackberry
  - (d) Windows
8. The example of mobile system is
- (a) smartphone
  - (b) tablet
  - (c) laptop
  - (d) all of these
9. The most commonly used security model is
- (a) ISO
  - (b) COSO
  - (c) ITIL
  - (d) ISGF
10. \_\_\_\_\_ is a branch of forensic science
- (a) digital forensics
  - (b) computer forensics
  - (c) security forensics
  - (d) system forensics

PART B — (5 × 5 = 25 marks)

Answer ALL questions choosing either (a) or (b).

Each answer should not exceed 250 words.

11. (a) Discuss the components of an Information System.
- Or
- (b) Justify Information Security is an Art or a Science.
12. (a) Write short notes on Fire Wall.
- Or
- (b) How to identify Risk?
13. (a) What is Honey Net?
- Or
- (b) Explain any one of Cryptographic Algorithm.
14. (a) How to secure mobile system?
- Or
- (b) What is mean by Accreditation in security?
15. (a) Discuss the credentials of information security professional.
- Or
- (b) How to maintain information security? Explain.





**PART C — (5 × 8 = 40 marks)**

Answer ALL questions choosing either (a) or (b).

Each answer should not exceed 600 words.

16. (a) Explain system Development Life Cycle.

Or

- (b) Mention the Ethics in Information Security.

17. (a) How to manage Risk? Explain.

Or

- (b) Describe information security policy.

18. (a) Illustrate about the attacks on crypto systems.

Or

- (b) What are various scanning and analysis tools used in security? Explain.

19. (a) Discuss Non technical Aspects of Implementation.

Or

- (b) Describe about failure of supporting utilities.

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20. (a) Elaborate various Internal control strategies.

Or

- (b) Explain Maintenance model.
- 

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Sub. Code : GMCA 64

B.C.A. (CBCS) DEGREE EXAMINATION, APRIL 2018.

Sixth Semester

Computer Application — Main

COMPUTER GRAPHICS AND MULTIMEDIA

(For those who joined in July 2012-2015)

Time : Three hours

Maximum : 75 marks

PART A — (10 × 1 = 10 marks)

Answer ALL questions.

Choose the correct answer :

1. \_\_\_\_\_ is used to design components and system of mechanical, electrical, electronic devices including structures of buildings etc.,

- (a) Java
- (b) CAD/CAM
- (c) Matlab
- (d) Python

2. Expand GKS

- (a) Graphics Knowledge System
- (b) Global Knowledge system
- (c) Graphics Kernel System
- (d) Global Kernel system

3. \_\_\_\_\_ technique provides a more general framework for scan conversion procedure.

- (a) DDA
- (b) Bresenham's
- (c) Polynomial
- (d) Mid point

4. The algorithm which displays line-type attributes by plotting pixel spans is

- (a) Raster line algorithm
- (b) Raster scan algorithm
- (c) Random line algorithm
- (d) Random scan algorithm

5. The transformation in which the dimension of an object are changed relative to a specified fixed point is called

- (a) Translation
- (b) Scaling
- (c) Rotation
- (d) Reflection

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6. In 2D-translation, a point  $(x, y)$  can move to the new position  $(x', y')$  by using the equation
- $x'=x+dx$  and  $y'=y+dx$
  - $x'=x+dx$  and  $y'=y+dy$
  - $X'=x+dy$  and  $Y'=y+dx$
  - $X'=x-dx$  and  $y'=y-dy$
7. The region against which an object is to be clipped is called as \_\_\_\_\_
- world coordinate
  - view port
  - clip window
  - boundaries
8. The region code of the clipping rectangle is \_\_\_\_\_
- 0000
  - 0001
  - 1000
  - 1111
9. In Windows, system sounds are \_\_\_\_\_ files.
- .rar.
  - .wav.
  - .3gp.
  - .wmv
10. \_\_\_\_\_ is used to establish to link to some other web page containing multimedia documents.
- text
  - images
  - hypertext
  - sound

PART B — (5 × 5 = 25 marks)

Answer ALL questions choosing either (a) or (b).

Each answer should not exceed 250 words.

11. (a) Comment on Interlacing.
- Or
- (b) Explain the Colour Raster Scan systems.
12. (a) Write a routine for scan converting lines with negative slopes.
- Or
- (b) Is the floodfill algorithm suitable for large polygons? If not, then can you suggest a remedy?
13. (a) Show that a shearing matrix can be described as combination of rotation and scaling transformation.
- Or
- (b) Write note on 3D Reflection transformations.
14. (a) Discuss the viewing transformation matrix.
- Or
- (b) Mention coherence properties useful to improve the efficiency of Z-buffer algorithm.





15. (a) Explain the commonly used compression standards developed by JPEG.

Or

- (b) What is meant by Quantization.

PART C — (5 × 8 = 40 marks)

Answer ALL questions choosing either (a) or (b).

Each answer should not exceed 600 words.

16. (a) Illustrate the hardware components used in a graphical system for real-time outputs.

Or

- (b) Describe different techniques for generation of colours in RGB monitors.

17. (a) Elucidate the advantages of Bresenham's line drawing algorithm, over the polynomial and DDA methods.

Or

- (b) Write a procedure to determine a seed pixel for filling a polygon using the odd-even method.

18. (a) Elucidate the Scaling about a Reference point.

Or

- (b) Discuss the Homogenous coordinate system.

19. (a) Discuss the Sutherland-Cohen midpoint subdivision algorithm.

Or

- (b) What are self-hidden surfaces? Can we remove them using back-face removal algorithm?

20. (a) Discuss the MPEG Compression technique.

Or

- (b) Describe how music can be composed and synthesized in MIDI.





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Sub. Code : GCSB 5 A

U.G. (CBCS) DEGREE EXAMINATION,  
NOVEMBER 2017.

Fifth Semester

Part IV – Common Skilled

PERSONALITY DEVELOPMENT

(For those who joined in July 2012-2015)

Time : Three hours

Maximum : 75 marks

PART A — (10 × 1 = 10 marks)

Answer ALL questions.

Choose the correct answer:

1. SWOT-ன் விரிவாக்கம்

- (அ) South West Organisation of Tourism  
(ஆ) Strengths, Weakness, Opportunities and Threats  
(இ) Study, Worth, Organs and Target  
(ஈ) Society, World, Opportunity and Trouble

Give expansion of SWOT

- (a) South West Organisation of Tourism  
(b) Strengths, Weakness, Opportunities and Threats  
(c) Study, Worth, Organs and Target  
(d) Society, World, Opportunity and Trouble

2. இலக்கு நிர்ணயம் \_\_\_\_\_ நடவடிக்கை வளர்ச்சியைத் தாங்கியுள்ளது.

- (அ) வடிவமைப்பு (ஆ) திட்ட  
(இ) அமைப்பு (ஈ) பொருள்

Goal setting involves the development of an action \_\_\_\_\_.

- (a) design (b) plan  
(c) structure (d) object

3. பெர்ச்பெக்ஷன் என்ற வார்த்தையின் பொருள் \_\_\_\_\_.

- (அ) உணர்வு தகவல் விளக்கம்  
(ஆ) உளவியல் புரிதல்  
(இ) தத்துவம்  
(ஈ) ஆன்மீகம்

The word perception means \_\_\_\_\_.

- (a) interpretation of sensory information  
(b) psychology understanding  
(c) philosophy  
(d) spiritual

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4. ஒரு பொருளை மதிப்பிட பயன்படுவது \_\_\_\_\_.

- (அ) ஆய்வு (ஆ) அணுகுமுறை  
(இ) மாற்று (ஈ) மதிப்பீடு

\_\_\_\_\_ is used to evaluate of an object.

- (a) Analyse (b) Attitude  
(c) Alternative (d) Assess

5. இரண்டு அல்லது அதற்கு மேற்பட்ட நபர்களுடன் நடைபெறும் உரையாடல் \_\_\_\_\_ ஆகும்.

- (அ) தொடர்பு (ஆ) பேச்சு  
(இ) விரிவுரை (ஈ) பேச்சுவார்த்தை

\_\_\_\_\_ is a dialogue between two or more people.

- (a) Communication (b) Speech  
(c) Lecture (d) Negotiation

6. பொதுத்தலைமை \_\_\_\_\_ நடத்தைகளை நோக்கமாகக் கொள்ள வேண்டும்.

- (அ) 22 (ஆ) 14  
(இ) 34 (ஈ) 50

Public leadership focuses on the \_\_\_\_\_ behaviours.

- (a) 22 (b) 14  
(c) 34 (d) 50

7. நடவடிக்கைப் பூர்வமான பகுப்பாய்வுக் கருத்தை வெளியிட்டவர் யார்?

- (அ) ஜேம்ஸ் பிரெளன் (ஆ) எரிக் பென்  
(இ) லாரன்ஸ் (ஈ) ஜெரேமி

Who introduced the concept of transactional analysis?

- (a) James Brown (b) Eric Berne  
(c) Lawrence (d) Jeremy

8. பொதுவான மன அழுத்த முறை \_\_\_\_\_.

- (அ) நாள்பட்ட மன அழுத்தம்  
(ஆ) மன அழுத்தம்  
(இ) உள் மன அழுத்தம்  
(ஈ) உடல் மன அழுத்தம்

\_\_\_\_\_ is the common form of stress.

- (a) Chronic stress (b) Acute stress  
(c) Inner stress (d) Physical stress

9. சமூக நளினங்கள் என்பது \_\_\_\_\_ ஆகும்.

- (அ) கொள்கை (ஆ) நடத்தை  
(இ) திறமை (ஈ) முறை

Social graces are \_\_\_\_\_.

- (a) policy (b) behaviour  
(c) skill (d) system





10. மேஜை நாகரீக சட்டங்கள் \_\_\_\_\_ போது கடைபிடிக்கப்படுகின்றது.

- (அ) கூட்டத்தின் (ஆ) கருத்தரங்கின்  
(இ) சாப்பிடும் (ஈ) பார்க்கும்

Table manners are the rules used while \_\_\_\_\_.

- (a) meeting (b) seminar  
(c) eating (d) watching

PART B — (5 × 5 = 25 marks)

Answer ALL questions, choosing either (a) or (b).

Answer should not exceed 250 words.

11. (அ) SWOT-ன் சூழ்நிலைகளை விவரி.

Describe the components of SWOT.

Or

(ஆ) இலக்கு நிர்ணயத்தின் முக்கியத்துவத்தைக் குறிப்பிடுக.

Mention the importance of goal setting.

12. (அ) செயல்முறையை அமைப்பது பற்றிச் சுட்டிக்காட்டுக.

Point out the formation of attitude.

Or

(ஆ) மன உறுதியை வளர்க்கும் முறையைக் கூறுக.

State the system of improving assertiveness.

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13. (அ) சிறந்த குழுவை உருவாக்கும் முறையை எடுத்துக்காட்டுக.

Illustrate the method of creating effective team.

Or

(ஆ) ஒரு சிறந்த தலைவருக்கான தகுதிகளைத் தொகுத்தெழுதுக.

Summarise the qualification of an effective leader.

14. (அ) உணர்வுசார் நுண்ணறிவு என்றால் என்ன?

What is emotional intelligence?

Or

(ஆ) மன அழுத்தத்திற்கானக் காரணங்களை வரைக.

Sketch the causes for stress.

15. (அ) குழு விவாதத்தின் செயல்முறையை வரைக.

Trace the process of group discussion.

Or

(ஆ) நேரடிக்காணலுக்கான வினாக்கள் பற்றி ஒரு குறிப்புத் தருக.

Give an note on interview questions.

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PART C — (5 × 8 = 40 marks)

Answer ALL questions, choosing either (a) or (b).

Answer should not exceed 600 words.

16. (அ) ஆளுமை பண்பை நிர்ணயிக்கும் காரணிகளைத் தொகுத்தெழுதுக.  
Enumerate the factors determinants of personality trait.

Or

- (ஆ) சுய விழிப்புணர்வை வளர்க்கும் தன்மைகளை விவாதி.  
Discuss the nature of developing self-awareness.

17. (அ) உயர் சுய கண்காணிப்பு மற்றும் தாழ்நிலை சுய கண்காணிப்பு பற்றி ஓர் கட்டுரை எழுதுக.  
Write an essay on the high self-monitor and low level self-monitor.

Or

- (ஆ) புலனுணர்வில் ஏற்படும் தவறுகளை ஆராய்க.  
Analyse the errors in perception.

18. (அ) பேச்சு வார்த்தையின் வகைகளையும் அதனால் ஏற்படும் பொதுவானத் தவறுகளை விளக்குக.  
Elucidate the types and common mistakes in negotiation process.

Or

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- (ஆ) மோதல் மேலாண்மை பற்றிய இலக்கணங்கள் மற்றும் தீர்மானங்களை ஆராய்க.

Examine the definition of conflict management and resolution of conflict.

19. (அ) தொடர்பு வலையின் முக்கியத்துவத்தை வெளிக்கொணர்.

Bring out the importance of communication network.

Or

- (ஆ) பேச்சுவார்த்தை ஆய்வு பற்றி எடுத்துரைக்க.

Illustrate the importance of transactional analysis.

20. (அ) சமூக நளினங்களைப் பற்றியும் அதனை பெறுவது பற்றியும் ஆராய்க.

Assess the social graces and acquiring social graces.

Or

- (ஆ) மேஜை நாகரீகத்தில் செய்யக்கூடிய மற்றும் செய்யக்கூடாத செயல்களை விவரி.

Describe the Do's and Don'ts of table manners.

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(7 pages)

Reg. No. : .....

Code No. : 21046

Sub. Code : GMCA 6 B

B.C.A. (CBCS) DEGREE EXAMINATION,  
APRIL 2018.

Sixth Semester

Computer Applications – Main

Elective — DATA MINING

(For those who joined in July 2012 – 2015)

Time : Three hours

Maximum : 75 marks

PART A — (10 × 1 = 10 marks)

Answer ALL questions.

Choose the correct answer :

1. Which of the following a successful data mining technique is not expected to deliver?
  - (a) Unknown patterns
  - (b) Actionable
  - (c) Valid patterns
  - (d) Confirm expected patterns

2. \_\_\_\_\_ has data mining software called knowledge STUDIO.
  - (a) Weka
  - (b) Oracle
  - (c) Angoss
  - (d) Java
3. Association rule support is defined as
  - (a) the percentage of instances that contain the antecedent conditional items listed in the association rule
  - (b) the percentage of instances that contain the consequent conditions listed in the association rule
  - (c) the percentage of instances that contain all items listed in the association rule
  - (d) the percentage of instances in the database that contain at least one of the antecedent conditional items listed in the association rule
4. Which one of the following makes the brute force approach to finding association rules not viable?
  - (a) Too many items
  - (b) Too many transactions
  - (c) Too many itemset combinations
  - (d) Too many rules

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Code No. : 21046





5. \_\_\_\_\_ is the decision tree system that accepts numerical attribute values.
- (a) Quadstone            (b) OCI  
(c) SMILES                (d) NBC
6. Which one of the following is true?
- (a) Classification is separation of objects into classes  
(b) Supervised classification is posterior classification  
(c) Cluster analysis is Apriori classification  
(d) No training data is needed in supervised classification
7. Which type of following clustering computes augmented cluster ordering
- (a) OPTICS                (b) CLIQUE  
(c) STING                 (d) CLUSTER
8. In cluster analysis, \_\_\_\_\_ is not a distance metric.
- (a) Euclidean distance  
(b) Manhattan distance  
(c) Chebyshev distance  
(d) Maximum data value distance

9. \_\_\_\_\_ pages provide content and have little role in assisting a user's navigation.
- (a) Home                    (b) Index  
(c) Reference              (d) Content
10. Which one of the following is true?
- (a) Web is growing exponentially  
(b) Web mining involves finding interesting and useful knowledge from web data  
(c) Hyperlink and log data are used in web mining  
(d) All of the above

PART B — (5 × 5 = 25 marks)

Answer ALL questions, choosing either (a) or (b).

Each answer should not exceed 250 words.

11. (a) Explain the cleaning and preparing data process.
- Or
- (b) Give an example of use of data mining in astronomy.





12. (a) List steps of Apriori is most expensive for large databases.

Or

- (b) If(a, b) and (e, f) are the only 2-itemsets that are frequent and there are no frequent 3-itemsets, what rules are possible.

13. (a) What is cross-validation?

Or

- (b) Explain the application of supervised classification.

14. (a) How are the starting values in the K-Means method selected?

Or

- (b) List the steps involved in agglomerative method.

15. (a) What is a Hub?

Or

- (b) How web data mining could be applied to a large company's web site?

Page 5 Code No. : 21046

PART C — (5 × 8 = 40 marks)

Answer ALL questions, choosing either (a) or (b).

Each answer should not exceed 600 words.

16. (a) Briefly describe three case studies of successful use of data mining.

Or

- (b) Distinguish between data mining process and the water fall software development process.

17. (a) Explain the software designed for association rule mining.

Or

- (b) Discuss the mining Frequent Patterns without candidate Generation.

18. (a) What is the idea behind decision trees? How does a decision tree explain the structure for a given set of data.

Or

- (b) Explain the split algorithm based on the information theory.

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19. (a) Write note on Hierarchical methods.

Or

(b) Distinguish between K-means method and Expectation Maximization method.

20. (a) Explain the principles of Finger printing approach.

Or

(b) Illustrate the features of HITS algorithm.

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(6 pages)

Reg. No. : .....

Code No. : 21022

Sub. Code : GMCA 51

B.C.A. (CBCS) DEGREE EXAMINATION,  
NOVEMBER 2017.

Fifth Semester

Computer Application – Main

SOFTWARE ENGINEERING

(For those who joined in July 2012-2015)

Time : Three hours

Maximum : 75 marks

PART A — (10 × 1 = 10 marks)

Answer ALL questions.

Choose the correct answer.

1. \_\_\_\_\_ software is designed to be sold on the open market and to perform functions on general-purpose computers that many people need.  
(a) Custom  
(b) Generic  
(c) Embedded  
(d) System

2. All objects with same properties and behaviour are \_\_\_\_\_ of one class.  
(a) Subclass (b) Instance  
(c) Abstract (d) Method
3. \_\_\_\_\_ requirements describe the services provided for the users and for other systems.  
(a) Functional (b) Non-functional  
(c) Domain (d) Prototype
4. Which gathering technique is used to obtain the information that stakeholders may not think of telling you  
(a) Observation (b) Interviewing  
(c) Prototyping (d) None
5. A \_\_\_\_\_ is a label that describes the criteria used to specialize a super class into two or more subclasses.  
(a) Discriminator (b) Multiplicity  
(c) Association (d) Generalization
6. \_\_\_\_\_ are boxes that form columns, each containing activities associated with one class.  
(a) Swimlanes (b) Substates  
(c) Instances (d) Components

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7. Which of the following design provide computational mechanisms?

- (a) Algorithm                      (b) User interface  
(c) Protocol                        (d) Class

8. In \_\_\_\_\_ cohesion, related services are put together.

- (a) Layer                              (b) Functional  
(c) Sequential                        (d) Procedural

9. The \_\_\_\_\_ model shows software development as a series of hills.

- (a) Evolutionary                      (b) Water fall  
(c) Spiral                                (d) Temporal

10. The \_\_\_\_\_ model explicitly accounts for the divide and conquer principle.

- (a) Evolutionary  
(b) Waterfall  
(c) Spiral  
(d) Concurrent engineering

PART B — (5 × 5 = 25 marks)

Answer ALL questions, choosing either (a) or (b).

Each answer should not exceed 250 words.

11. (a) Describe various categories of software projects.

Or

(b) Distinguish object oriented and procedural paradigms.

12. (a) Illustrate the starting point for software projects.

Or

(b) How can you manage the changing requirement? Discuss.

13. (a) Discuss how to analyse and validate associations.

Or

(b) What is Collaboration diagram? Discuss.

14. (a) Write a note on content coupling.

Or

(b) How to develop an architectural model? State its importance.





15. (a) Explain any two types of defects found in algorithms.

Or

- (b) What is project management? Discuss.

PART C — (5 × 8 = 40 marks)

Answer ALL questions, choosing either (a) or (b).

Each answer should not exceed 600 words.

16. (a) What is software engineering? Write about the people involved in software engineering project.

Or

- (b) With suitable example, explain instance variables.

17. (a) Explain in detail about domain analysis.

Or

- (b) Explain the following techniques to gather and analyse requirements :

- (i) Interviewing
- (ii) Prototyping.

18. (a) With example, explain how to generate instance diagrams.

Or

- (b) Explain in detail about activity diagram.

19. (a) Discuss how to keep the level of abstraction as high as possible.

Or

- (b) Explain Transaction processing and model-view controller architectural pattern.

20. (a) Explain in detail about effective and efficient testing.

Or

- (b) Define software process model and explain waterfall model in detail.





(6 pages)

Reg. No. : .....

Code No. : 21023

Sub. Code : GMCA 52

B.C.A. (CBCS) DEGREE EXAMINATION,  
NOVEMBER 2017.

Fifth Semester

Computer Application –Main

WEB TECHNOLOGIES

(For those who joined in July 2012 – 2015)

Time : Three hours

Maximum : 75 marks

PART A — (10 × 1 = 10 marks)

Answer ALL questions.

Choose the correct answer :

1. What does the com domain represents?
  - (a) education domain
  - (b) commercial domain
  - (c) network domain
  - (d) none of the above

2. The first pages of a website is called?
  - (a) design page
  - (b) home page
  - (c) first page
  - (d) main page
3. How can make on E-mail link in html?
  - (a) `< a href ='xxx @ yyy'>`
  - (b) `< mail href = 'xxx @ yyy'>`
  - (c) `< mail > xxx @ yyy < mail >`
  - (d) `< a href ='mailto: xxx @ yyy'>`
4. Choose the correct html tag to make a text italic
  - (a) `< U >`
  - (b) `< italics >`
  - (c) `< italic >`
  - (d) `< i >`
5. Which of the following is net considered a Java script operator?
  - (a) new
  - (b) this
  - (c) delete
  - (d) type of
6. Choose the server side Java script object?
  - (a) file upload
  - (b) function
  - (c) file
  - (d) date





7. What is so great about XML?
- (a) easy data exchange
  - (b) high speed on network
  - (c) both a and b
  - (d) none of the above
8. The use of DTD in XML document is \_\_\_\_\_
- (a) required when validating XML documents
  - (b) no longer necessary after the XML editor has been customized
  - (c) used to direct conversion using an XSLT processor
  - (d) a good guide to populating a templates to be filled in when generating an XME document
9. In the http request method which is non-idempotent .
- (a) get                      (b) post
  - (c) Both a and b      (d) none of the above
10. The web container maintains the life cycle of a serulet instance, gave the life cycle of a servlet
- (a) servlet class is loading
  - (b) servlet instance is created
  - (c) init, service, destroy method is invoked
  - (d) all the above

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**PART B — (5 × 5 = 25 marks)**

Answer ALL questions, choosing either (a) or (b).

Each answer should not exceed 250 words.

11. (a) Discuss about web team.
- Or
- (b) What is the role of http on web? Explain.
12. (a) Write and Explain the format of an html document.
- Or
- (b) How to include picture in a html document?
13. (a) Explain the IF-else statement in Java script.
- Or
- (b) What is recursion? How the recursive functions implemented in Java script?
14. (a) Write and Explain the format of a XML document.
- Or
- (b) What is attributed declaration? Explain.

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[P.T.O.]





15. (a) Discuss about CGI security.

Or

(b) What are the strengths of servlets?

PART C — (5 × 8 = 40 marks)

Answer ALL questions, choosing either (a) or (b).

Each answer should not exceed 600 words.

16. (a) Discuss about the history of web.

Or

(b) Discuss about apache web server in detail.

17. (a) How to create a table in HTML? Explain with an example.

Or

(b) Explain CSS with appropriate example.

18. (a) Explain about various types of operators in Java scripts.

Or

(b) Explain about various types of looping in Java scripts.

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19. (a) Discuss about the role of XML.

Or

(b) How to DTD used in XML document?

20. (a) Discuss about generic and HTTP servlets.

Or

(b) Discuss about servlet life cycle.

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Sub. Code : GMCA

B.C.A. (CBCS) DEGREE EXAMINATION, APRIL, 2015

Fifth Semester

Computer Application — Main

WEB TECHNOLOGIES

(For those who joined in July 2012-2015)

Time : Three hours

Maximum : 75 marks

PART A — (10 × 1 = 10 marks)

Answer ALL questions.

Choose the correct answer :

1. What is a search engine?

- (a) A program that searches engines
- (b) A website that search anything
- (c) A hardware component
- (d) A machinery engine that search data

Which organization defines the web standards?

- (a) Microsoft corporation
- (b) IBM Corporation
- (c) World Wide Web consortium
- (d) Apple Inc

Text with in `<EM>..</EM>` tag is displayed is

- (a) Bold
- (b) Italic
- (c) List
- (d) Indented

`<TD>...</TD>` tag is used for \_\_\_\_\_.

- (a) Table heading
- (b) Table records
- (c) Table row
- (d) None of the above

Java script entities start with \_\_\_\_\_ and end with \_\_\_\_\_.

- (a) Semicolon, colon
- (b) Semicolon, Ampersand
- (c) Ampersand, colon
- (d) Ampersand, semicolon

Choose the client side javascript object?

- (a) Database
- (b) Cursor
- (c) Client
- (d) File upload



7. XMC uses the features of
- (a) HTML                      (b) XHTML  
(c) VML                        (d) SGML
8. Which of the following strings are a correct XML name?
- (a) \_my Element              (b) My Element  
(c) # my Element              (d) None of the above
9. A header in CGI script can specify \_\_\_\_\_.
- (a) Format of the document  
(b) New location of the document  
(c) Start of the document  
(d) Both (a) and (b)
10. The life cycle of a servlet is managed by \_\_\_\_\_.
- (a) Servlet context  
(b) Servlet container  
(c) The supporting protocol (such as http or https)  
(d) All the above

PART B — (5 × 5 = 25 marks)

Answer ALL the questions, choosing either (a) or (b).

- (a) Discuss about the protocols governing the web.

Or

- (b) What are the major issues in web solution development? Explain.

- (a) Explain about the various types of lists in html.

Or

- (b) Demonstrate the various types of headings in html.

- (a) What is variable? What are the naming convention of variable in Java script?

Or

- (b) What is an array? Explain with an example.

- (a) Explain about the basic syntax of a XMC document.

Or

- (b) What is schema? What are the XMC Schema languages?



15. (a) What are the advantages of servlets over applets?

Or

- (b) What are the limitations of cookies.

PART C — (5 × 8 = 40 marks)

Answer ALL the questions, choosing either (a) or (b).

16. (a) Discuss about Web architecture in detail.

Or

- (b) Discuss about MIME.

17. (a) Discuss about text formatted tags in html.

Or

- (b) Discuss about browser compatibility in CSS.

18. (a) Discuss about request and response objects in Java scripts.

Or

- (b) How to pass an arguments to a function in Java script? Explain with an example.



10. (a) Discuss about command usage of XML document.

Or

- (b) Discuss about element type declaration and attribute declaration.

11. (a) Discuss about servlet architecture in detail.

Or

- (b) Discuss about Displaying filters in detail.
-



(6 pages)

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Code No. : 21024

Sub. Code : GMCA 53

B.C.A. (CBCS) DEGREE EXAMINATION,  
NOVEMBER 2017.

Fifth Semester

Computer Application – Main

RDBMS

(For those who joined in July 2012 – 2015)

Time : Three hours

Maximum : 75 marks

PART A — (10 × 1 = 10 marks)

Answer ALL questions.

Choose the correct answer :

1. The basic data type Char (n) is a \_\_\_\_\_ length character string and Varchar (n) is \_\_\_\_\_ length character.  
(a) Fixed, equal (b) Equal, variable  
(c) Fixed, variable (d) Variable, equal
2. To remove a relation from an SQL Database use the \_\_\_\_\_ command.  
(a) Delete (b) Purge  
(c) Remove (d) Droptable

3. The \_\_\_\_\_ clause allows us to select only those rows in the result relation of the \_\_\_\_\_ clause that satisfy a specified predicate  
(a) Where, from (b) From, select  
(c) From, where (d) Select, from
4. \_\_\_\_\_ are useful in SQL update statements, where they can be used in the set clause  
(a) Multiple queries (b) Sub queries  
(c) Update (d) Scalar sub queries
5. How many tables may be included with a join.  
(a) One (b) Two  
(c) Three (d) All of them
6. Updating the value of the view  
(a) Will affect the relation from which it is defined  
(b) Will not change the view definition  
(c) Will not affect the relation from where it is defined  
(d) Cannot determine
7. PL/SQL Supports data types  
(a) Scalar (b) Composite  
(c) both (a) and (b) (d) none of the above

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8. Select the invalid variable type in PL/SQL  
(a) CHAR (b) VARCHAR 1  
(c) VARCHAR 2 (d) Integer
9. Where do we declare an explicit cursor in PL/SQL?  
(a) In the PL/SQL working storage section  
(b) In the PL/SQL declaration section  
(c) In the PL/SQL body section  
(d) In the PL/SQL exception section
10. The command used to open a cursor for loop is  
(a) Open (b) Fetch  
(c) Parse (d) None of the above

PART B — (5 × 5 = 25 marks)

Answer ALL questions, choosing either (a) or (b).

Each answer should not exceed 250 words.

11. (a) Explain about date and time data types with appropriate examples.  
Or  
(b) Write and explain the syntax of Altering the existing table.

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12. (a) What are the arithmetic operations performed in SQL?

Or

- (b) Explain about any three built in functions with appropriate example.

13. (a) Explain about left outer join, right outer join with appropriate example.

Or

- (b) What is the purpose of indexing? Explain.

14. (a) Explain about PL/SQL block structure.

Or

- (b) What is bind variables? Explain.

15. (a) Explain about composite data type.

Or

- (b) Explain about user defined exceptions.

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[P.T.O.]





PART C — (5 × 8 = 40 marks)

Answer ALL questions, choosing either (a) or (b).

Each answer should not exceed 600 words.

16. (a) Explain about various categories of PL/SQL data types.

Or

- (b) Explain the SQL statements for create, display, Alter, drop, rename, truncate a table.

17. (a) Explain about any five DML statements in detail.

Or

- (b) Explain about Grouping function in detail.

18. (a) What is TOP-N analysis? Explain.

Or

- (b) What is view? How to create view? Explain with appropriate syntax.

19. (a) What is variable and Anchored declaration? Explain.

Or

- (b) Explain about transaction control statements.

20. (a) Why need cursors? Explain about implicit cursor in detail.

Or

- (b) Explain about built in exception in detail.
- 





(6 pages)

Reg. No. : .....

Code No. : 21024

Sub. Code : GMCA

B.C.A. (CBCS) DEGREE EXAMINATION, APRIL 2015

Fifth Semester

Computer Application – Main

RDBMS

(For those who joined in July 2012-2015)

Time : Three hours

Maximum : 75 marks

PART A — (10 × 1 = 10 marks)

Answer ALL questions.

Choose the correct answer :

1. Updates that violate \_\_\_\_\_ are disallowed
- (a) integrity constraints
  - (b) transaction control
  - (c) authentication
  - (d) DDL constraints

Which are of the following is used to define the structure of the relation, deleting relation and relation schemes?

- (a) DML
- (b) DDL
- (c) Query
- (d) Relational schema

\_\_\_\_\_ clause is an additional filter that is applied to the result

- (a) select
- (b) group by
- (c) having
- (d) order by

SQL applied predicates in the \_\_\_\_\_ clause after groups have been formed, so aggregate functions may be used

- (a) Group by
- (b) With
- (c) Where
- (d) Having

Which of the join operation do not pressure non matched tuples?

- (a) Left outer join
- (b) Right outer join
- (c) Inner join
- (d) Natural join

Which of the following creates a virtual relation for string the query?

- (a) function
- (b) view
- (c) procedure
- (d) none of the above



7. A line of PL/SQL text contains group of characters known as \_\_\_\_\_
- (a) Lexical units                      (b) Literals  
(c) Textual units                      (d) Identifiers
8. Which function can be used with any data type?
- (a) Sum                                      (b) min and Max  
(c) AVG                                      (d) TRUNC
9. What is the maximum number of handlers processed before the PL/SQL block is executed when an exception occurs?
- (a) Only one  
(b) All that apply  
(c) All referenced  
(d) None of the above
10. Which of the following is not correct about user defined exceptions?
- (a) Must be declared  
(b) Must be raised explicitly  
(c) Raised automatically in response to an error  
(d) None of the above

Answer ALL questions, choosing either (a) or (b).

- (a) Explain about naming rules and conventions in oracle.

Or

- (b) What is the purpose of drop table? Explain.  
(a) How to update more than one field in a table? Explain with appropriate example.

Or

- (b) What is group by clause? Explain.  
(a) Explain about various set operations in detail.

Or

- (b) Explain local table statement with appropriate syntax.  
(a) Write a PL/SQL program using any one control structure. Explain.

Or

- (b) What is nested blocks? Explain.



15. (a) What is VARRAYS? Explain.

Or

(b) What is records? Explain.

PART C — (5 × 8 = 40 marks)

Answer ALL questions, choosing either (a) or (b).

16. (a) Explain about different ways to display information of a table.

Or

(b) Explain about rename, drop, truncating table.

17. (a) Write and explain about any five commands with appropriate syntax.

Or

(b) Why need string? Explain with appropriate examples.

18. (a) Explain about various types of joins.

Or

(b) What are views? Explain with appropriate examples.



(a) Explain about Arithmetic operators in PL/SQL.

Or

(b) Explain about any five transaction control statements in P2/SQL.

(c) What are composite data types? Explain.

Or

(d) What are two types of exceptions? Explain.

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