

**SECTION - C**

[ 3 X 10 = 30 ]

**Answer Any THREE Questions.**

16. Describe about different types of database models
17. Discuss on Third and Boyce-codd normal forms by examples
18. Explain about Tuple Relational calculus. Give examples
19. Describe about various control structures available in PL/SQL by examples.
20. Explain Recovery facilities and Recovery techniques in detail.

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**G.T.N. ARTS COLLEGE (AUTONOMOUS)**

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**END SEMESTER EXAMINATION – NOVEMBER 2020**

**Programme : B.Sc., Computer science**

**Date : 21.12.2020**

**Course Code: 17UCSC51**

**Time : 10 am. to 1 pm.**

**Course Title : Relational Database**

**Management System**

**Max Marks :75**

**SECTION - A**

**[10 X 1 = 10]**

**Answer ALL the Questions.**

**Choose the Correct Answer.**

1. What are the key attributes of information ?  
[a] Accuracy [b] Timeliness  
[c] Relevancy [d] All the above
2. Who is called the father of relational database system?  
[a] C.J. Date [b] H.F. Korth  
[c] E.F. Codd [d] Leslie.B.Lampport
3. \_\_\_\_\_ expresses the specific number of entity occurrences associated with one occurrence of the related entity.  
[a] Cardinality [b] Degree  
[c] Connectivity [d] Rank
4. Elimination of repeating groups in a database table is called \_\_\_\_\_.  
[a] 2NF [b] 1NF  
[c] 3NF [d] 4NF

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SECTION - C [ 3 X 10 = 30 ]

Answer Any THREE Questions.

16. Describe about system development life cycle.
17. Write in detail about cost benefit analysis.
18. Discuss in detail about Data flow diagram
19. Write a brief note on software interface design.
20. Discuss on Software implementation methods.

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**END SEMESTER EXAMINATION – NOVEMBER 2020**

Programme : B.Sc., Computer Science      Date : 22.12.2020

Course Code: 17UCSC52

Time: 10 am. to 1 pm.

Course Title : System Analysis & Design      Max Marks : 75

SECTION - A [10 X 1 = 10]

Answer ALL the Questions.

Choose the Correct Answer.

1. SDLC stands for

- [a] Software Development Life Cycle
- [b] System Development Life Cycle
- [c] Software Design Life Cycle
- [d] System Design Life Cycle

2. The Linear Sequential or Classic Life Cycle is also called

- [a] Waterfall Model
- [b] Incremental Model
- [c] Spiral Model
- [d] Prototyping Model

3. A feasibility study is used to determine the proposed systems.

- [a] resource requirements
- [b] costs and benefits
- [c] availability of hardware and software
- [d] all the above



Reg. No: 

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**END SEMESTER EXAMINATION – NOVEMBER 2020**

Programme : B.Sc., Computer Science

Date : 23.12.2020

Course Code: 17UCSE51

Time : 10 am to 1 pm.

Course Title : Advanced Visual Programming

Max Marks : 75

**SECTION – A**

**[10 X 1 = 10]**

**Answer ALL the Questions.**

**Choose the Correct Answer.**

1. The ability to create an abstract representation of a concept in code is \_\_\_\_\_.

- [a] Inheritance
- [b] Hiding
- [c] Abstraction
- [d] Polymorphism

2. A name that identifies the property is \_\_\_\_\_

- [a] Variable
- [b] Varname
- [c] Name
- [d] Identifier

3. \_\_\_\_\_ is a function to get a string of text from the user.

- [a] Input box
- [b] Label box
- [c] Text box
- [d] Message box

4. \_\_\_\_\_ event occurs when the control loses the focus.

- [a] .Got Focus
- [b] .Lost Focus
- [c] .KeyDown
- [d] .KeyPress

5. \_\_\_\_\_ property gets a value initiating whether the radio button is checked

- [a] Autocheck
- [b] CheckedChanged
- [c] Checked
- [d] Checkstate

6. \_\_\_\_\_ method gets an item's text in the combo box.

- [a] SelectedItem
- [b] SelectedText
- [c] SetItemText
- [d] GetItemText

7. \_\_\_\_\_ bar is like scroll bar but differ in appearance

- [a] Track bar
- [b] Status bar
- [c] Menu bar
- [d] Title bar

8. \_\_\_\_\_ method is used to show the print preview

- [a] Printdialog
- [b] Showdialog
- [c] Displaydialog
- [d] Opndialog

9. \_\_\_\_\_ keyword is used to create class members

- [a] Shared
- [b] Private
- [c] Public
- [d] Protected

10. \_\_\_\_\_ property gets the first visible mode

- [a] Pointer Node
- [b] Header Node
- [c] First Node
- [d] Top Node

**SECTION – B** [5 X 7 = 35]

**Answer ALL the Questions.**

11. a) How will you declare the variable? Explain

[OR]

b) What is scope? Explain about the different kinds of scope.

12. a) List and explain the keyboard events in VB.Net.  
[OR]

b) Compare the TextBox and RichTextBox.

13. a) Write about check box properties & events with example.  
[OR]

b) Discuss in detail about picture box.

14. a) List and explain the properties and methods of Date TimePicker.  
[OR]

b) Explain in detail about ColorDialogBox.

15. a) How to create structures in VB.Net?  
[OR]

b) Write in detail about interfaces.

**SECTION – C**

[3 X 10 = 30]

**Answer Any THREE Questions.**

16. Discuss in detail about making selection and looping repetitions statements.

17. Explain in detail about the windows form properties and events.

18. Illustrate about buttons

19. Discuss about scrollbar in VB.Net.

20. Explain about List Views in detail. How will you create List View

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**END SEMESTER EXAMINATION – APRIL 2020**

Programme : B. Sc., CS/IT/BCA

Date : 26.12.2020

Course Code: 17UCAS51/17UCSS51/17UITS51

Time: 10 am. to 1 pm.

Course Title : Quantitative Aptitude

Max Marks : 75

SECTION – A

[10 X 1 = 10]

Answer ALL the Questions.

Choose the Correct Answer.

1. The HCF of 108, 288 & 360 is \_\_\_\_\_.

[a] 72

[b] 36

[c] 9

[d] 18

2. The Vulgar fraction of 0.75 is \_\_\_\_\_.

[a]  $\frac{3}{4}$

[b]  $\frac{2}{3}$

[c]  $\frac{6}{7}$

[d]  $\frac{4}{3}$

3. The average of first 40 natural numbers is \_\_\_\_\_.

[a] 19.5

[b] 20

[c] 21.5

[d] 20.5



4. Find the value of  $\sqrt{\frac{0.289}{0.00121}}$ .

[a]  $\frac{170}{11}$

[b]  $\frac{11}{170}$

[c]  $\frac{170}{13}$

[d]  $\frac{13}{170}$

5. If the S. P. = RS 40.60 and gain = 16%, Find the CP \_\_\_\_\_.

[a] 38

[b] 40

[c] 35

[d] -35

6. If a : b = 5:9 and b:c = 4:7 then a : b : c = \_\_\_\_\_.

[a] 20:30:63

[b] 20:36:63

[c] 22:36:63

[d] 20:36:65

7. A cyclist covers a distance of 750m in 2 min 30 sec. Then the speed of the cyclist in km/hr is \_\_\_\_\_.

[a] 20 km/hr

[b] 16 km/hr

[c] 18 km/hr

[d] 15 km/hr

8. If A & B together do a work in 4 days. If A alone can do it in 12 days then B can do the work in \_\_\_\_\_ days.

[a] 8

[b] 10

[c] 12

[d] 6

9. The simple interest on Rs 68,000 at  $\frac{50}{3}$ % per annum for 9 months is \_\_\_\_\_.

[a] 8,500

[b] 8,000

[c] 7,500

[d] 8,200

10. A cuboids is of length 16m, breadth 14m and height 7m then the volume is \_\_\_\_\_.

[a]  $1565 \text{ m}^3$

[b]  $1465 \text{ m}^3$

[c]  $1568 \text{ m}^3$

[d]  $1468 \text{ m}^3$

**SECTION – B** **[5 X 7 = 35]**

**Answer ALL the Questions.**

11. a) i) Simplify  $\frac{(893 + 786)^2 - (893 - 786)^2}{(893 \times 786)} = ?$

ii) Find the L.C.M Of 16, 24, 36 & 54

**[OR]**

b) i) Evaluate  $6202.5 + 620.25 + 62.025 + 6.2025 + 0.62025$

ii) Evaluate  $31.0040 - 17.2386$

12. a) i) If  $x = \left[ \frac{\sqrt{5} + \sqrt{3}}{\sqrt{5} - \sqrt{3}} \right]$  and  $y = \left[ \frac{\sqrt{5} - \sqrt{3}}{\sqrt{5} + \sqrt{3}} \right]$  Find the value of  $(x^2 + y^2)$

ii) Find the average of first 20 multiples of 7

**[OR]**

b) i) The sum of a rational number and its reciprocal number is  $\frac{13}{6}$ . Find the number?

ii) Rajeev's age after 15 years will be 5 times his age 5 years back.

What is the present age of Rajeev?

13. a) i) Difference of two numbers is 1660. If 7.5% of one number is 12.5% of the other number, Find the two numbers

19. i) A can do a piece of work in 18 days, B and C can do it in 24 days, A and C can do it in 36 days. In how many days will A, B & C finish it working together & separately

ii) A man travelled from the village to the post office at the rate of 25 kmph and walked back at the rate of 4 kmph. If the whole journey took 5 hrs 48 minutes, Find the distance of the post – office from the village.

20. i) The altitude drawn to the base of an isosceles triangle is 8cm and the perimeter is 32cm. Find the area of the triangle

ii) Find the volume, Curved surface area & total surface area of a cylinder with diameter of base 7cm and height 40 cm.

iii) If the simple interest on a sum of money at 5% per annum for 3 years is Rs 1,200. Find the C. I on the same sum for the same period at the same rate.

[ 3 X 10 = 30 ]

**SECTION - C**  
**Answer Any THREE Questions.**

16. Write an essay on Ozone layer depletion.  
ஓசோன் படலம் அழிவிற்கான காரணம் குறித்து கட்டுரை எழுதுக.
17. Give an account of ecological pyramids.  
சூழலியல் பிரமிடுகள் குறித்து கட்டுரை வரைக.
18. Explain various non conventional energy sources.  
மரபு சாரா ஆற்றல் பற்றி விவாதி.
19. Write an essay on air pollution and its control.  
காற்று மாசுபாடு மற்றும் அதைக்கட்டுப்படுத்தும் முறைகள் பற்றி எழுதுக.
20. Discuss the need and approaches for conservation of biodiversity.  
பல்லுயிர் பெருக்கத்தின் முக்கியத்துவம் அதனைப் பாதுகாக்கும் முறைகள் பற்றி விவாதி.

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**END SEMESTER EXAMINATION - NOVEMBER 2020**

Programme : B.A./B.Sc./B.Com/B.B.A./B.C.A.

Date: 29.12.2020

Course Code: 17UESV51

Time: 10 am - 1 pm

Course Title : Environmental Studies

Max. Marks: 75

**SECTION - A** [10 X 1 = 10]

**Answer ALL the Questions.**  
**Choose the Correct Answer.**

1. The most traditional word to refer our environment is -----  
[a] Mother Nature [b] Queen nature  
[c] King of forest [d] Prince Nature  
கற்றுச்சூழல் என்னும் வார்த்தையைக் குறிக்கும் பாரம்பரியமான சொல் ----  
[அ] இயற்கை அன்னை [ஆ] இயற்கை அரசி  
[இ] காடுகளின் அரசன் [ஈ] இயற்கை இளவரசன்
2. The lowest layer of the atmosphere is -----  
[a] Ionosphere [b] Thermosphere  
[c] Troposphere [d] Mesosphere  
வளிமண்டலத்தின் கீழ் அடுக்கு ----  
[அ] அயனி மண்டலம் [ஆ] வெப்ப மண்டலம்  
[இ] ட்ரோபோஸ்பியர் [ஈ] மீயோஸ்பியர்
3. Who developed ecological pyramid?  
[a] Odum [b] Haekal  
[c] Charles Elton [d] A.C.Tensley  
கற்றுச்சூழல் பிரமிடை உருவாக்கியவர் யார்?  
[அ] ஓடம் [ஆ] பிரபு  
[இ] அடிமை [ஈ] வியாபாரி
4. Energy ----- in an ecosystem.  
[a] is released [b] is absorbed  
[c] Flows [d] is balanced

--1--



சுற்றுச்சூழலில் ஆற்றல் என்பது-----

- [அ] விடுவிக்கப்படுகிறது  
[ஆ] உறிஞ்சப்படுகிறது  
[இ] ஓடுகிறது  
[ஈ] சமநிலைப்படுகிறது

5. Which one is not an non conventional energy?

- [a] Bio energy  
[b] Solar energy  
[c] Tidal energy  
[d] Petroleum

பின்வருவனவற்றுள் எது மரபுசாரா ஆற்றல்?

- [அ] உயிர் ஆற்றல்  
[ஆ] சூரிய ஆற்றல்  
[இ] அலை ஆற்றல்  
[ஈ] பெட்ரோலியம்

6. Power production from urban waste was first started in the following city.

- [a] Delhi  
[b] Kolkata  
[c] Mumbai  
[d] Chennai

பின்வரும் எந்த நகரத்திலிருந்து முதன்முதலில் நகர குப்பைகளில் இருந்து மின் உற்பத்தி செய்யப்பட்டது.

- [அ] டெல்லி  
[ஆ] கொல்கத்தா  
[இ] மும்பை  
[ஈ] சென்னை

7. ----- is known as "Jewels of the Earth".

- [a] Mangrove forest  
[b] Deciduous forest  
[c] Temperate rain forest  
[d] Grassland

பூமியின் ஆபரணம் -----

- [அ] சதுப்புநீல காடுகள்  
[ஆ] இலையுதிர்காடுகள்  
[இ] வெப்பமண்டல மழைக்காடுகள்  
[ஈ] புல்வெளிக்காடுகள்

8. The best example of pesticide pollution is -----.

- [a] DDT  
[b] Endpin  
[c] Endosulfan  
[d] Benzidine

மாக ஏற்படுத்தும் பூச்சிக்கொல்லிக்கு சிறந்த உதாரணம்.

- [அ] DDT  
[ஆ] என்டைபான்  
[இ] என்டோசல்பான்  
[ஈ] பென்சிடைன்

9. ----- number of mega diversity countries is present in the world.

- [a] 9  
[b] 6  
[c] 12  
[d] 15

உலகத்தில் உள்ள அதிக பல்லுயிர் பெருக்க நாடுகள் எத்தனை?

- [அ] 9  
[ஆ] 6  
[இ] 12  
[ஈ] 15

10. The first biosphere reserve declared in India in 1986 is -----

- [a] Gir forest  
[b] Nilgiris  
[c] Palani hills  
[d] Agasthiyamalai

1986-ல் முதன்முதலில் இந்தியாவில் அறிவிக்கப்பட்ட உயிர் கோளம்

- [அ] கிர காடுகள்  
[ஆ] நீலகிரி  
[இ] பழனி  
[ஈ] அகஸ்தியர் மலை

## SECTION - B

Answer ALL the Questions.

11. a) Briefly explain about Global warming.

அ) உலக வெப்பமயமாதல் பற்றி சுருக்கமாக விவரி  
[OR]

b) Give an account of cloud bursting.

ஆ) மேகவெடிப்பு பற்றி விவரி.

12. a) Explain the structural features of an ecosystem.

அ) சூழ்நிலை மண்டலத்தின் அமைப்பை விவரி.  
[OR]

b) What is food chain? Give its importance.

ஆ) உணவுச்சங்கிலி என்றால் என்ன? அதன் முக்கியத்துவத்தை எழுது.

13. a) Give an account of different types of coal and its important properties.

அ) நிலக்கரி வகைகள் மற்றும் அதன் பண்புகளை விவரி.  
[OR]

b) Discuss the hydel power potential in India.

ஆ) இந்தியாவின் நீர்மின் உற்பத்தி திறன் பற்றி விவரி.

14. a) Give a brief note on non-renewable and renewable resources.

அ) புதுப்பிக்கக்கூடிய மற்றும் புதுப்பிக்க இயலா ஆற்றல் பற்றி சிறு குறிப்பு வரைக.

[OR]

b) Explain the mineral resources in India.

ஆ) இந்தியாவின் தாது வளங்களை விவரி.

15. a) What is IUCN red list and explain different terms used in red list.

அ) IUCN சிகப்பு பட்டியல் பற்றி எழுதுக. மேலும் சிகப்பு பட்டியலில் உள்ள கூற்றுக்களை விவரி.

[OR]

b) Discuss the causes of extinction of species.

ஆ) உயிரின அழிவிற்கான காரணங்களை விவாதி

Reg. No:

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**END SEMESTER EXAMINATION – NOVEMBER 2020**

**Programme : III B.Sc. Computer Science**

**Date: 20.01.2021**

**Course Code: 17CCSC51**

**Time: 10 am. to 1 pm.**

**Course Title: Oracle DBA.**

**Max Marks: 75**

**SECTION – A**

**[5 X 2 = 10]**

**Answer ALL the Questions.**

1. Write short note on SVRMGL.
2. Write a short note on permanent tablespace.
3. What is a table space and data file?
4. What is the clustered and nonclustered indexes?
5. What are the types of display force objects.

**SECTION – B**

**[5 X 7 = 35]**

**Answer ALL the Questions.**

6. a) Explain the OEM in detail.  
[OR]
- b) Explain the steps for creating new control files.
7. a) List the Tablespace and explain it.  
[OR]
- b) Explain physical database design in detail.

8. a) Explain dropping users in detail.

[OR]

b) What is Database Auditing Explain it in detail.

9. a) Explain altering and dropping indexes with proper syntax.

[OR]

b) List down the suggestions for database tuning.

10. a) Compare consistent and inconsistent backup.

[OR]

b) Explain the overview of REDO application.

**SECTION – C**

**[3 X 10 = 30]**

**Answer Any THREE Questions.**

11. Briefly explain the creating database in oracle.
12. Explain complete tablespace in detail with syntax.
13. Explain creating and dropping rollback segments.
14. Explain the creation of table with syntax.
15. How to make recovery of the database?

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## END SEMESTER EXAMINATION –NOVEMBER 2020

Programme: B.Sc.(Computer Science)

Date: 21.12.2020

Course Code:17UCSC61

Time: 2 pm. to 5 pm.

Course Title : Data Communication Networks

Max Marks :75

### SECTION – A

[10 X 1 = 10]

Answer ALL the Questions.

Choose the Correct Answer.

1. The \_\_\_\_\_ is the physical path over which a message travels.

[a] Medium

[b] Protocol

[c] signal

[d] All the above

2. A fully connected mesh network has \_\_\_\_\_ physical channels to link n devices.

[a]  $n(n+1)/2$

[b]  $n(n-1)/2$

[c]  $n(n^2+1)/2$

[d]  $n^2+1/2$

3. \_\_\_\_\_ cable consists of an inner copper core and a second conducting outer sheath.

[a] Shielded twisted pair

[b] Twisted pair

[c] Coaxial

[d] Fiber optic

4. Which error detection method can detect a single bit error?

[a] LRC

[b] VRC

[c] CRC

[d] All the above

18. Write in detail about error control.

19. Explicate token ring.

20. Elaborate the ISDN layers.



5. For a sliding window of size  $n-1$ , there can be a maximum of \_\_\_\_\_ frames sent but unacknowledged.

- [a] 0
- [b]  $n$
- [c]  $n-1$
- [d]  $n+1$

6. The primary station in HDLC sends \_\_\_\_\_.

- [a] frequency
- [b] commands
- [c] order
- [d] responses

7. In FDDI, data normally travel on \_\_\_\_\_.

- [a] primary ring
- [b] secondary ring
- [c] both ring
- [d] neither ring

8. \_\_\_\_\_ uses a physical star topology.

- [a] 10Base5
- [b] 10Base2
- [c] 10Base-T
- [d] None of the above

9. An  $n$  by  $n$  folded switch can connect \_\_\_\_\_ lines in full duplex mode.

- [a]  $n-1$
- [b]  $(n-1)/2$
- [c]  $n+1$
- [d]  $n$

10. The B channel means \_\_\_\_\_.

- [a] Brand
- [b] Bearer
- [c] Big
- [d] Bound

**SECTION - B**

**Answer ALL the Questions.**

[5 X 7 = 35]

11. a) Write note on network criteria

[OR]

b) Discuss about TCP/IP layer.

12. a) Write about twisted-pair cable.

[OR]

b) Give in detail of checksum

13. a) Describe the three HDLC station types and configurations.

[OR]

b) Elucidate line discipline.

14. a) Write note on project 802.

[OR]

b) How switched Ethernet works? Discuss.

15. a) Expound packet switching.

[OR]

b) Discuss about Evolution and services of ISDN.

**SECTION - C**

[3 X 10 = 30]

**Answer Any THREE Questions.**

16. List and deliberate the functions of layers of OSI model.

17. Illustrate cyclic redundancy check.

SECTION - C

[ 3 X 10 = 30]

Answer Any THREE Questions.

16. Describe about applications of computer graphics in detail.
17. Explain in detail about Midpoint Circle Generating Algorithm.
18. Explain in detail about line attributes.
19. Discuss in detail about 2D Composite Transformation.
20. Discuss in detail about Liang Barsky Line clipping algorithm with example.

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**END SEMESTER EXAMINATION - NOVEMBER 2020**

Programme : B.Sc. Computer Science

Date : 22.12.2020

Course Code: 17UCSC62

Time : 2 pm. to 5 pm.

Course Title : Computer Graphics

Max Marks : 75

SECTION - A

[10 X 1 = 10]

Answer ALL the Questions.

Choose the Correct Answer.

1. Picture definition is stored in a memory area called the \_\_\_\_  
[a] Frame buffer [b] Pixel  
[c] Pel [d] Aspect ratio
2. \_\_\_\_ scanners collect digital data from radiation emitted from ingested radionuclides and plot color coded images.  
[a] Computer Surgery [b] Nuclear medicine  
[c] PET [d] CT
3. \_\_\_\_ display a straight line segment by plotting discrete points between the two endpoints..  
[a] Digital device [b] Position device  
[c] Segment device [d] Coordinate device

Reg. No: 

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**END SEMESTER EXAMINATION – NOVEMBER 2020**

Programme : B.A/B.Sc./B.Com/B.B.A./B.C.A

Date: 29.12.2020

Course Code: 17UVEV61

Time: 2 pm – 5 pm

Course Title : Value Education

Max Marks : 75

**SECTION – A**

[10 X 1 = 10]

Answer ALL the Questions.

Choose the Correct Answer.

1. Value on the taking care of one's body of a person is -----.

[a] physical value [b] special value

[c] social value [d] ethical value

மதிப்பு என்பது ஒருவரின் ----- உடலைப் பேணுவது ஆகும்.

[அ] உடல்சார்ந்த [ஆ] மனம் சார்ந்த

[இ] சமுதாயம் சார்ந்த [ஈ] ஒழுக்க நெறி

2. ----- is a belief of our power and abilities.

[a] Self confidence [b] Self evaluation

[c] Tolerance [d] Hard work

----- என்பது தனது சக்தியையும் திறமையையும் நம்புவது.

[அ] தன்னம்பிக்கை [ஆ] சுயமதிப்பீடு

[இ] பொருத்தல் [ஈ] விடாமுயற்சி

3. Which religion celebrate Ahimsa as their main quality?

[a] Buddhism [b] Jainism

[c] Sikhism [d] Christianity

அஹிம்சை என்ற ஆறும், பண்மை கொண்டாடும் மதம் எது?

[அ] புத்தமதம் [ஆ] சமண மதம்

[இ] சீக்கிய மதம் [ஈ] கிறிஸ்துவமதம்

4. ----- is the efficiency characters of motivation, hardwork, carefulness, seriousness.

[a] Patience [b] Angry

[c] Courage [d] Experience

--!--

15. a) Explain the role of educational institution in value education.  
அ) மதிப்புகளை பரப்புவதில் கல்வி நிலையங்களின் பங்கு பற்றி விளக்குக.

[OR]

b) Explain peer group in value formation.

ஆ) "ஒப்பார் குழு" என்பதை விளக்குக.

[ 3 X 10 = 30 ]

**SECTION – C**

Answer Any THREE Questions.

16. Write about the significance of values and individual.

விழுமியங்களின் சிறப்பம்சங்கள் மற்றும் தனி மனித விழுமியங்களையும் குறித்து வரைக.

17. Write an essay on religions and peace.

சமயங்களும் அமைதியும் என்பது குறித்து கட்டுரைக்க.

18. Write an essay about human rights and importance of human rights.

மனித உரிமைகள் அவற்றின் முக்கியத்தும் ஆகியவை பற்றி கட்டுரைக்க.

19. Write about Team Spirit and development.

ஒர்மை உணர்வும் குழு ஆற்றலின் வளர்ச்சியும் குறித்து வரைக.

20. Who is your role model? Why did you choose to be so?

உன்னுடைய வாழ்க்கைக்கான முன்மாதிரி யார்? நீவிர் ஏன் அவர்களை தேர்ந்தெடுத்தீர்கள்?



ஊக்கம், எச்சரிக்கை, கடின உழைப்பு, தீவிரதன்மை என்ற குணங்கள் கொண்ட கூட்டாற்றல் \_\_\_\_\_ ஆகும்.

- [அ] பொறுமை  
[ஆ] கோபம்  
[இ] வளமை  
[ஈ] அனுபவம்

5. Consequence of social integration \_\_\_\_\_

- [a] economic growth  
[b] right to education  
[c] social development  
[d] all of these

சமூக ஒற்றுமையின் விளைவுகள் \_\_\_\_\_

- [அ] பொருளாதார வளர்ச்சி  
[ஆ] கல்வியறிவு பெறுதல்  
[இ] சமூக நன்மையின் முன்னேற்றம்  
[ஈ] இவையனைத்தும்

6. Which of the following is not required for competence development?

- [a] Experience  
[b] Ego  
[c] Commitment  
[d] Observation

கீழ்க்கண்டவற்றில் எது ஆற்றல் வளர்ச்சிக்கு தேவையில்லை?

- [அ] அனுபவம்  
[ஆ] அகப்பெருமை  
[இ] உற்று நோக்கல்  
[ஈ] அகங்காரம்

7. Freedom, Equality, Fraternity, Tolerance are principles of \_\_\_\_\_.

- [a] democratic functioning  
[b] accountability  
[c] learning process  
[d] none of these

சுதந்திரம், சமத்துவம், சகோதரத்துவம், சகிப்புத்தன்மை ஆகிய கோட்பாடுகள் கொண்டது \_\_\_\_\_

- [அ] ஜனநாயகத்தின் செயல்பாடுகள்  
[ஆ] பொறுப்பின் செயல்பாடு  
[இ] கல்வியின் செயல்பாடுகள்  
[ஈ] இவற்றில் எதுவுமில்லை

8. The common values of all the professions are \_\_\_\_\_

- [a] Acquiring knowledge  
[b] Commitment  
[c] Sincerity  
[d] All the above

தொழில் சார்ந்த பொது மதிப்பு என்பது \_\_\_\_\_

- [அ] அறிவு பெறுவது  
[ஆ] அர்ப்பணிப்பு  
[இ] நேர்மை  
[ஈ] இவை அனைத்தும்

9. The statement "Value educational for peace, culture and human development form India to the world" was given by \_\_\_\_\_

- [a] Mahatma Gandhi  
[b] Swami Vivekananda  
[c] Dr. B.R. Ambedkar  
[d] Jawaharlal Nehru

மதிப்புறு கல்வியின் மூலம் அமைதி கலாசாரம், மனித வளர்ச்சி போன்றவை இந்தியாவில் இருந்து உலகிற்கு உட்கொடுக்கப்பட்டன. இது "இந்தியாவின் மதிப்பு" என்ற கூற்று கூறியவர் யார்?

- [அ] மகாத்மா காந்தி  
[ஆ] சுவாமி விவேகானந்தர்  
[இ] Dr. B.R. அம்பேத்கார்  
[ஈ] ஜவஹர்லால் நேரு

10. Aesthetic value are related to \_\_\_\_\_.

- [a] value from human behaviour  
[b] value in art and literature  
[c] rules of society  
[d] ideals of religious

அழகியல் மதிப்பு என்பது எதுவுமேயான மதிப்பு [ஆ] கலை மற்றும் இலக்கியத்தின் மதிப்பு

- [அ] சமூகத்தின் மதிப்பு  
[ஆ] மனதின் மதிப்பு  
[இ] சமூகத்தின் மதிப்பு  
[ஈ] மதகொள்கைகள்

**SECTION - B**

**Answer ALL the Questions.**

[5 X 7 = 35]

11. a) How do you consider self discipline, compassion, forgiveness and honesty as values?

அ) சுய ஒழுக்கம், இரக்கம், மன்னிப்பு, நேர்மை ஆகியவற்றின் விழுமிய பண்புகளை கூறுக.

[OR]

b) What is courage? Write the importance of courage.

ஆ) தைரியம் என்றால் என்ன? அதன் முக்கியத்துவத்தை எழுதுக.

12. a) What is karma? Give an example.

அ) கர்மா என்றால் என்ன? அதற்கு எடுத்துக்காட்டு தருக.

[OR]

b) What is the need for religious harmony?

ஆ) மத நல்லிணக்கத்தின் அவசியத்தை கூறுக.

13. a) Define Democracy. State the importance and types of democracy.

அ) மக்களாட்சி என்பதை வரையறு. அதனுடைய முக்கியத்துவத்தை அதன் வகைகளையும் கூறுக.

[OR]

b) What are the issues of social integration?

ஆ) சமூக ஒருமைப்பாட்டுக்கு இடையூறான காரணிகள் யாவை?

14. a) Explain respecting others / reverence.

அ) பிறரை மரியாதைபுடன் நடத்துதல் பற்றி விளக்குக.

[OR]

b) Explain the democratic functioning and what do you understand by term honesty?

ஆ) ஜனநாயகத்தின் முறைகளைப் பற்றி விளக்குக. மற்றும் நேர்மை என்ற அறிவுது யாது?

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**END SEMESTER EXAMINATION – NOVEMBER 2020**

Programme : III B.Sc. Computer Science

Date: 20.1.2021

Course Code: 17CCSC61

Time: 2 pm. to 5 pm.

Course Title: Multimedia Technology

Max Marks: 75

**SECTION – A**

**[5 X 2 = 10]**

Answer ALL the Questions.

1. List out the types of Animation.
2. Define procutter.
3. Define polygon.
4. Define Assigning Controls.
5. What are the types of display force objects?

**SECTION – B**

**[5 X 7 = 35]**

Answer ALL the Questions.

6. a) Explain in detail about standard primitive.  
[OR]
- b) Explain in detail about extended primitive.
7. a) Discuss the create lines, attach spline and trim spline.  
[OR]
- b) Give short notes about Morphing.

8. a) Discuss about the component mode in editing geometry.

[OR]

b) Explain in detail about primitive maintenance modifier.

9. a) Explain the path constraint and position constraint.

[OR]

b) Explain about Editing clips in Multimedia.

10. a) Discuss the force group and display in Gravity.

[OR]

b) Discuss the force group and display in wind.

**SECTION – C**

**[3 X 10 = 30]**

Answer Any THREE Questions.

11. Write a short notes on standard and extended primitive.
12. Discuss the 2D animation in detail.
13. Explain about deforming surfaces and using the mesh modifiers.
14. Explain in detail working with constraints in Animation.
15. Discuss the Display force object and deflectors.






SECTION - C [ 3 X 10 = 30 ]

Answer Any THREE Questions.

16. Explain about inter-process communication in detail.
17. Discuss hardware solution to the mutual exclusions.
18. Illustrate about FIFO, RR and HRRN scheduling.
19. Discuss about variable-partition multiprogramming.
20. Explain briefly about directories.

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**END SEMESTER EXAMINATION - NOVEMBER 2020**

Programme: B.Sc. Computer Science

Date: 04.01.2021

Course Code: 17UCSC42

Time: 2 pm. to 5 pm.

Course Title : Operating System

Max Marks :75

SECTION - A [10 X 1 = 10]

Answer ALL the Questions.

Choose the Correct Answer.

1. A \_\_\_\_\_ operating system is a single operating system that manages resources on more than one computer system.  
[a] network [b] distributed  
[c] micro kernel [d] monolithic
2. A processor can do so by repeatedly requesting the status of each device, a technique is called \_\_\_\_\_.  
[a] polling [b] interrupt  
[c] exception [d] interval timer
3. When a thread is accessing shared modifiable data, it is said to be in a \_\_\_\_\_.  
[a] mutual exclusion [b] consumer thread  
[c] producer thread [d] critical region

4. \_\_\_\_\_ algorithm that ensures mutual exclusion between two threads and prevents both indefinite postponement and deadlock.  
 [a] Dekker's [b] Dijkstra's  
 [c] Petter's [d] Bakery
5. \_\_\_\_\_ is grouping of resources that perform a common task.  
 [a] Graph Reduction [b] Resource allocation graph  
 [c] Resource type [d] Reentrant code
6. \_\_\_\_\_ scheduling policy that permits each ready process to execute for at most one quantum per round.  
 [a] SSR [b] SPF  
 [c] SRT [d] RR
7. \_\_\_\_\_ strategies determine where in main memory the system should place incoming program or data pieces.  
 [a] Fetch [b] Anticipatory  
 [c] Placement [d] Replacement
8. A \_\_\_\_\_ contain an entry for each of a process's virtual pages.  
 [a] page fault [b] page frame  
 [c] page table [d] page address
9. \_\_\_\_\_ same as SCAN except the head changes direction upon reaching the last request in the preferred direction.  
 [a] FCFS [b] SCAN  
 [c] CSCAN [d] LOOK

10. Each sequential sub file is called a \_\_\_\_\_.  
 [a] record [b] member  
 [c] file [d] extents

**SECTION - B**

**Answer ALL the Questions.**

11. a) Discuss core operating system components. [OR]  
 b) Explain about process control blocks.
12. a) Elucidate critical section and mutual exclusion primitives. [OR]  
 b) Illustrate about counting and implementing semaphores.
13. a) What is deadlock? Explain four necessary condition for deadlock. [OR]  
 b) Explain briefly about deadlock detection.
14. a) Describe about memory hierarchy in detail. [OR]  
 b) Illustrate about first-in-first-out page replacement.
15. a) Explain about LOOK and CLOOK Scheduling. [OR]  
 b) Write a note on: Files.

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**END SEMESTER EXAMINATION – NOVEMBER 2020**

Programme : B.Sc. Computer Science      Date : 05.01.2021

Course Code: 17UCSS41                      Time : 2 pm. to 5 pm.

Course Title : System Software            Max Marks : 75

**SECTION – A**                                      **[10 X 1 = 10]**

**Answer ALL the Questions.**

**Choose the Correct Answer.**

1. \_\_\_\_\_ instruction tests whether the addressed devices is ready to send or receive data.  
[a] Test Status                                      [b] Device Test  
[c] Test Device                                    [d] Status Test
2. SIC is \_\_\_\_\_  
[a] Simple Instruction Set Computer  
[b] Simplified Instructional Set Computer  
[c] Sample Instructional Set Computer  
[d] Sample Instruction Set Computer.
3. \_\_\_\_\_ is used to look up mnemonic operation codes.  
[a] SYMTAB                                        [b] OPTAB  
[c] Operation Code Table                      [d] LOCCTR



**SECTION - B**

[5 X 7]

**Answer ALL the Questions.**

4. \_\_\_\_\_ assembler avoids the overhead of writing the object program out and reading it back in  
[a] Absolute Assembler [b] Relocating Loader  
[c] Load and go [d] Bootstrap Loader
5. The vax memory consists of \_\_\_\_\_  
[a] 64 bits [b] 32 bits  
[c] 16 bits [d] 8 bits
6. OPTAB stands for \_\_\_\_\_.  
[a] Operand Code Table [b] Operator Code Table  
[c] Operation Code Table [d] Optional Code Table
7. In parsing techniques \_\_\_\_\_ methods begin with the root of the tree.  
[a] top down [b] bottom up  
[c] top down and bottom up [d] syntactic structure
8. In compiler \_\_\_\_\_ generate object code directly.  
[a] Grammar [b] Lexical Analysis  
[c] Syntax Routines [d] Semantic Routines
9. \_\_\_\_\_ is a computer program that allow the users to create and revise a target document.  
[a] Function Key [b] Input Device  
[c] Interactive Editor [d] Output Device
10. \_\_\_\_\_ used to track the flow of execution logic and data modifications.  
[a] Gaits [b] Tracing  
[c] Sequencing [d] Display

11. a) Elucidate SIC/XE architecture [OR]  
b) Write about Pentium Pro architecture.
12. a) Simplify the record formats generated by assembler in object. [OR]  
b) Write short notes on Multi pass Assembler.
13. a) Describe Bootstrap Loader. [OR]  
b) Write about the data structure used in Loader.
14. a) Discuss about Multi pass Compiler. [OR]  
b) Portray P-Code Compiler.
15. a) Write short note on user Interface. [OR]  
b) Write about debugging system.

**SECTION - C**

[3 X 10]

**Answer Any THREE Questions.**

16. Illustrate RISC-PowerPC machine architecture.
17. Discuss about structure and design of one pass assemblers with an
18. Discuss about program linking in Loader.
19. Illustrate Lexical Analysis Phase in compiler.
20. Explain about Editor Structure.

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**END SEMESTER EXAMINATION – NOVEMBER 2020**

**Programme : B.Sc., Computer Science      Date : 02.01.2021**  
**Course Code: 17UCSC31                      Time: 10 am. to 1 pm.**  
**Course Title : Object Oriented**  
**Programming in C++                      Max Marks :75**

**SECTION – A                                      [10 X 1 = 10]**

**Answer ALL the Questions.**

**Choose the Correct Answer.**

1. The small individual unit in a program are known as \_\_\_\_\_  
[a] keywords                                      [b] tokens  
[c] identifier                                      [d] operators
2. We can overload all the C++ operators except \_\_\_\_\_  
[a] ?:  
[c] ::  
[b] .  
[d] all the above
3. What is the syntax of friend function?  
[a] friend class1 class2;  
[c] friend class  
[b] friend class;  
[d] none of the above
4. Which of the following statements regarding inline functions is correct?  
[a] it speeds up execution                      [b] it slows down execution  
[c] it increases the code size                      [d] Both (a) and (C)

5. Which of the following is not a type of constructor?

- [a] Copy constructor
- [b] Friend constructor
- [c] Default Constructor
- [d] Parameterized constructor

6. Write the syntax for unary operator.

- [a] Op x
- [b] .Xxop y
- [c] x.operator op(y)
- [d] operator op(x,y)

7. A class can inherit the attributes of two or more classes is known as \_\_\_\_\_

- [a] Virtual
- [b] Hybrid
- [c] Multilevel
- [d] Multiple

8. \_\_\_\_\_ means one name having multiple forms.

- [a] Polymorphism
- [b] Binding
- [c] Virtual
- [d] Abstract

9. \_\_\_\_\_ function moves get pointer to a specified location

- [a] Seekp()
- [b] tellg()
- [c] Seekg()
- [d] tellp()

10. A \_\_\_\_\_ pointer refers to an object that currently invokes a member function.

- [a] dynamic
- [b] this
- [c] static
- [d] runtime

## SECTION - B

[5 X 7 = 35]

Answer ALL the Questions.

11. a) Define the structure of C++ program

[OR]

b) Give a brief note on data types available in C++

12. a) How can you a define member function?

[OR]

b) Discuss on inline function.

13. a) Give a note on overloading binary operators.

[OR]

b) Write a short notes on Constructor

14. a) Describe about virtual base class

[OR]

b) Create a student mark list using single inheritance.

15. a) Explain about this pointer.

[OR]

b) Evaluate virtual functions.

## SECTION - C

[3 X 10 =

Answer Any THREE Questions.

16. Describe about control structures in C++

17. Explain about Overloading member functions.

18. Write program to overload + operator.

19. Discuss in detail about inheritance with suitable examples.

20. Write a program demonstrating pure virtual function.



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**END SEMESTER EXAMINATION – NOVEMBER 2020**

Programme : B.Sc. Computer Science

Date : 04.01.2021

Course Code: 17UCSC32

Time: 10 am. to 1 pm.

Course Title : Data structure and

Computer Algorithm

Max Marks :75

**SECTION – A**

[10 X 1 = 10]

Answer ALL the Questions.

Choose the Correct Answer.

1. Assuming int is of 4 bytes, What is the size of int arr[15] ?

[a] 15

[b] 19

[c] 11

[d] 60

2. In linked list each node contain minimum of two fields. one field is data

Field to store data second field is \_\_\_\_\_.

[a] Pointer to character

[b] Pointer to integer

[c] Pointer to node

[d] Node

3. Process of inserting an element in stack is called \_\_\_\_\_.

[a] Create

[b] Push

[c] Evaluation

[d] Pop

**SECTION – C**

[ 3 X 10 = 30 ]

Answer Any THREE Questions.

16. Define: Doubly linked list. Write the structure and algorithm to insert a node in DLL.

17. Define Circular Queue, Write the algorithm form insert and delete operations with necessary diagrams.

18. What is Binary Tree Traversal. Write the procedure for inorder , preorder & post order.

19. Discuss briefly about the strassen's Matrix multiplication.

20. Discuss briefly about optimal storage on tapes with examples.

4. A linear list of elements in which deletion can be done from one end(front) and insertion can take place only at the other end(rear) is known as a \_\_\_\_\_
- [a] Queue [b] Stack  
[c] Tree [d] Linked list
5. Binary trees can have how many children?
- [a] 2 [b] any number of children  
[c] 0 or 1 or 2 [d] 0 or 1
6. How many common operations are performed in a binary tree?
- [a] 1 [b] 2  
[c] 3 [d] 4
7. Arrangement of data in to a specific order is classified as \_\_\_\_\_.
- [a] sorting [b] ordering  
[c] learning [d] inquiring
8. Which of the following is not in place sorting algorithm?
- [a] Merge sort [b] Quick sort  
[c] Heap sort [d] Insertion sort
9. What is the time complexity of Krushkal's algorithm?
- [a]  $O(\log V)$  [b]  $O(E \log V)$   
[c]  $O(E^2)$  [d]  $O(V \log E)$
10. The Knapsack problem is an example of \_\_\_\_\_.
- [a] Greedy algorithm [b] 2D dynamic programming  
[c] ID dynamic programming [d] Divide and conquer

**SECTION - B**

[5 X 7 = 35]

**Answer ALL the Questions.**

11. a) Define ADT. List the advantages of ADT. [OR]
- b) Write the algorithm to print and insert the elements in the linked list.
12. a) Define Queue. Write the algorithm to insert a element in queue. [OR]
- b) Define stack. with examples. Discuss shortly about push operation stack.
13. a) Define binary tree. Give examples for Binary Tree, What is meant complete binary tree? [OR]
- b) Write short note about representation of binary trees.
14. a) Define Recursive algorithm. Write short note about towers of Hanoi. [OR]
- b) What is merge sort? Write the algorithm for merge sort.
15. a) Discuss shortly about Huffman code. [OR]
- b) Write short notes about single source shortest path.





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**END SEMESTER EXAMINATION – NOVEMBER 2020**

Programme : B.Sc., Computer Science      Date : 09.01.2021  
Course Code: 17UCSC11                      Time: 10 am. to 1 pm.  
Course Title : Programming in C            Max Marks :75

**SECTION – A                      [10 X 1 = 10]**

**Answer ALL the Questions.**

**Choose the Correct Answer.**

1. A \_\_\_\_\_ is a data name that may be used to store a data value.  
[a] variable                      [b] record  
[c] field                          [d] file
2. The ternary operator or conditional operator is \_\_\_\_\_.  
[a] ~                                [b] <<  
[c] ?;                               [d] ?;
3. The while statement is a/an \_\_\_\_\_ statement.  
[a] entry-controlled loop      [b] exit-controlled loop  
[c] infinite loop                [d] branching loop
4. A built-in multiply decision statement is known as \_\_\_\_\_ statement.  
[a] if                                [b] if-else  
[c] switch                         [d] goto

12. a) Explain if-else statement with examples. [OR]
- b) Describe the switch-case statement with examples
13. a) Explain the concept of one dimensional array with suitable example [OR]
- b) Write a C program to sort the given set of n numbers.
14. a) What is structure? Explain with example, how structure member be accessed? [OR]
- b) Write short notes on unions.
15. a) What is a pointer variable? Explain how it can be declared? [OR]
- b) Describe the process of opening and closing a file.
- SECTION – C** [ 3 X 10 = 30
- Answer Any THREE Questions.**
16. Explain about various operators available in C with examples
17. Describe the loop control statements in C with suitable examples.
18. Explain in detail about various string handling functions with example
19. Explain about the array of structures with an example program.
20. Discuss the I/O operations on files with examples.

5. A/An \_\_\_\_\_ is a group of similar data items.
- [a] structure [b] array
- [c] pointer [d] union
6. A string function that joins two strings together is \_\_\_\_\_
- [a] strcpy() [b] strcmp()
- [c] strcat() [d] strlen()
7. The variable declared inside a function is called \_\_\_\_\_
- [a] actual [b] formal
- [c] global [d] local
8. A/An \_\_\_\_\_ is a mechanism for packing data of different data type.
- [a] array [b] structure
- [c] real [d] integer
9. A \_\_\_\_\_ is a place on the disk where a group of related data is stored.
- [a] file [b] process
- [c] task [d] array
10. A function that gives the current position in the file \_\_\_\_\_
- [a] fseek() [b] rewind()
- [c] ftell() [d] fcurrent()
- SECTION – B** [5 X 7 = 35]
- Answer ALL the Questions.**
11. a) Describe the different types of constants in C. [OR]
- b) Explain the basic structure of C program.





4. \_\_\_\_\_ is an integer that windows uses to identify the object.  
 [a] SelText  
 [c] Device content  
 [b] Device context  
 [d] SelInt
5. \_\_\_\_\_ is a part of a program that performs one or more related tasks has its own name, is written as a separate part of the program.  
 [a] Function  
 [b] Procedure  
 [c] Sub procedure  
 [d] User-defined function
6. Find out the return value of the given comparison 'String1 is less than String2'.  
 [a] 0  
 [c] null  
 [b] 1  
 [d] -1
7. \_\_\_\_\_ is triggered when the user clicks inside a cell that is different from the one currently selected  
 [a] Selcharge  
 [c] Leave cell  
 [b] Entry cell  
 [d] Compare Event
8. Windows maintains a list of pending events in what is called as \_\_\_\_\_.  
 [a] Event Queue  
 [c] Form Event  
 [b] Event List  
 [d] Late Event
9. The \_\_\_\_\_ is occasionally used is the form resize procedure to redisplay any graphics that were calculated in the paint event procedure.  
 [a] Auto redraw  
 [c] Refresh method  
 [b] Shape control  
 [d] Line control

10. Find out the possible bit set and values for the shift parameters to detect the special keys 'Shift key down'.  
 [a] Bit 0; Value = 1  
 [c] Bit 2; Value = 4  
 [b] Bit 1; Value = 2  
 [d] Bit 3; Value = 6

**SECTION - B**

**Answer ALL the Questions.**

11. a) Highlight the various basic properties of forms [OR]  
 b) Illustrate the term simple event procedures for command button example.
12. a) Explain how do you working with variables? [OR]  
 b) Describe in detail about format function in Visual Basic.
13. a) (i) What is sub procedures?  
 (ii) Write a program to find the factorial of a given number using procedure. [OR]  
 b) Analyse the term Fixed versus Dynamic arrays.
14. a) Explain the various events and methods for grid controls. [OR]  
 b) Discuss how can you accessing windows functions?

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**END SEMESTER EXAMINATION – NOVEMBER 2020**

**Programme : BCA/CS/IT**

**Date: 12.01.2021**

**Course Code: 17UITA21/17UCAAA21/17UCSA21 Time: 2 pm. to 5 pm.**

**Course Title : Operation Research**

**Max. Marks :75**

**SECTION – A [10 X 1 = 10]**

**Answer ALL the Questions.**

**Choose the Correct Answer.**

1. Operation Research approach is \_\_\_\_\_.  
[a] intuitive [b] objective  
[c] multi-disciplinary [d] all of the above
2. Decision variables in O.R. models are \_\_\_\_\_.  
[a] controllable [b] uncontrollable  
[c] parameters [d] constants
3. A constraint in a linear programming problem restricts \_\_\_\_\_.  
[a] value of objective function [b] value of decision variable  
[c] use of available resource [d] uncertainty of optimum value
4. If two constraints do not intersect in the positive quadrant of the graph, then \_\_\_\_\_.  
[a] one of the constraint is redundant  
[b] the solution is infeasible  
[c] the solution is unbounded  
[d] the solution is feasible

**SECTION - C [ 3 X 10 = 30 ]**

**Answer Any THREE Questions.**

16. Discuss various classification schemes of models.
17. A company makes two kind of leather belts. Belt A is high quality belt B is of lower quality. The respective profits are Rs.4.00 and Rs.3.00 per belt. Each belt of type A requires twice as much time as a belt of type B, and if All belts were of type B, the company could make 1000 per day. The Supply of leather is sufficient for only 800 belts per day (Both A and B Combined). Belt A requires a fancy buckle and only 400 per day are Available. There are only 700 buckles a day available for belt B. Determine the optimal product mix. Formulate this as a linear Programming problem and solve it by Graphical Method.
18. Use simplex method to solve the LPP: Maximize  $z = 4x_1 + 10x_2$  subject to the constraints  $2x_1, x_2 \leq 50; 2x_1 + 5x_2 \leq 100; 2x_1 + 3x_2 \leq 90; x_1, x_2 \geq 0$ .

19. Consider the following transportation problem:

Factory	Warehouse						Stock available
	1	2	3	4	5	6	
A	7	5	7	7	5	3	60
B	9	11	6	11	--	5	20
C	11	10	6	2	2	8	90
D	9	10	9	6	9	12	50
Demand	60	20	40	20	40	40	

It is not possible to transport any quantity from B to Godwin 5. Determine:

- i) Initial solution by Vogel's Approximation method.  
 ii) Optimum Basic Feasible Solution.

10. The minimum number of lines covering all the zeros in a reduced cost

Matrix of order b can be \_\_\_\_\_.

- [a] At most n                      [b] at least n  
 [c] n - 1                            [d] n + 1

**SECTION - B [5 X 7 = 35]**

**Answer ALL the Questions.**

11. a) Describe briefly the different phases of Operation Research. **[OR]**  
 b) What are the advantages of Operation Research model?
12. a) A company has three operational departments (weaving, processing and packing) with capacity to produce three different types of clothes namely suiting's, shirting's and woolens yielding a profit of Rs.2, and Rs.4 and Rs.3 per meter respectively. One meter of suiting requires 3 minutes in weaving, 2minutes in processing and 1 minute in processing and 3 minutes in packing. One meter of woolen requires 3 minutes in each department. In a week, total run time of each department is 60, 40 and 80 hours for weaving, processing and packing respectively.  
 Formulate the linear programming problem to find the product mix to maximize the profit.

**[OR]**

- b) Use graphical method to solve the following LPP: Maximize  $z = 2x_1 + 3x_2$  subject to the constraints  $x_1 + 2x_2 \leq 30; x_1 - x_2 \geq 3; 0 \leq x_1 \leq 20; 0 \leq x_2 \leq 12$ .



13. a) Use Big M method to solve the LPP. Maximize  $z = 3x_1 + 2x_2$  constraints

$$2x_1 + x_2 \leq 1; x_1 + 4x_2 \geq 6; x_1, x_2 \geq 0$$

[OR]

b) Use two phase simplex method to solve the LPP: Maximize

$$z = 5x_1 + 3x_2 \text{ subject to the constraints } 2x_1 + x_2 \leq 1; x_1 + 4x_2 \geq 6; x_1, x_2 \geq 0$$

14. a) Obtain an initial basic feasible solution to the following transportation problem using the north west corner method.

	D	E	F	G	Available
A	11	13	17	14	250
B	16	18	14	10	300
C	21	24	13	10	400
Requirement	200	225	275	250	

[OR]

b) Find an optimum solution to the following transportation problem:

Factory	Warehouse			Capacity	
	D	E	F		G
A	42	48	38	37	160
B	40	49	52	51	150
C	39	38	40	43	190
Demand	80	90	110	160	

15. a) A departmental head has four subordinates, and four tasks to be performed. The subordinates differ in efficiency, and the tasks differ in intrinsic difficulty. His estimate, of the time each man would take to perform each task, is given below:

Tasks	Men			
	E	F	G	H
A	18	26	17	11
B	13	28	14	26
C	38	19	18	15
D	19	26	24	10

[OR]

b) A student has to select one and only one elective in each semester the semester and the same elective should not be selected in different semesters. Due to various reasons, the expected grades in each semester if selected in different semesters, vary and they are given below:

Semester	Analysis	Statistics	Graph theory	Algebra
I	F	E	D	C
II	E	E	C	C
III	C	D	C	A
IV	B	A	H	H

The grade points are: H=10, A=9, B=8, C=7, D=6, E=5 and F=4. The student will select the electives in order to maximize the total expected points and what will be his maximum expected total points?

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## END SEMESTER EXAMINATION – NOVEMBER 2020

Programme : B. Sc. Mathematics

Date : 10.01.2021

Course Code: 17UCSA11/17UITA11/17UCAA11

Time: 10 am. to 1 pm.

Course Title : Discrete Mathematics

Max Marks : 75

### SECTION – A

[10 X 1 = 10]

Answer ALL the Questions.

Choose the Correct Answer.

1. The number of subsets of a set with 4 elements is \_\_\_\_\_.

[a] 4

[b] 8

[c] 16

[d] 32

2. If  $A = \{8,4,6\}$  and  $B = \{5,3,7\}$  then  $B \setminus A$  is \_\_\_\_\_.

[a]  $\emptyset$

[b]  $\{8,4,6\}$

[c]  $\{5,3,7\}$

[d]  $\{3,4,5,6,7,8\}$

3. If P: Asha is smart, Q: Veena is smart, then the symbolic form of the

statement "It is not true that Asha and Veena are both smart" is \_\_\_\_\_.

[a]  $\neg(P \rightarrow Q)$

[b]  $\neg(P \wedge Q)$

[c]  $\neg P \wedge \neg Q$

[d]  $\neg(Q \rightarrow P)$

4. If P: Triangle ABC is equilateral and Q: Triangle ABC is equiangular then

$P \leftrightarrow Q$  is \_\_\_\_\_.

[a] If triangle ABC is equilateral then triangle ABC is equiangular.

[b] If triangle ABC is equiangular then triangle ABC is equilateral.

[c] Triangle ABC is equilateral if and only if triangle ABC is equiangular.

[d] Triangle ABC is equilateral and triangle ABC is equiangular.

5. The recurrence relation for the sequence  $D(n) = 2n + 9$  is \_\_\_\_\_.

[a]  $D(n) - D(n - 1) = 2 \forall n \geq 1$  with  $D(0) = 9$

[b]  $D(n) + 2D(n - 1) = 0 \forall n \geq 1$  with  $D(0) = 9$

[c]  $D(n) - 2D(n - 1) = 0 \forall n \geq 1$  with  $D(0) = 9$

[d]  $D(n) + D(n - 1) = 2 \forall n \geq 1$  with  $D(0) = 9$

6. The order of recurrence relation  $T(n) = 2(T(n - 1))^2 - nT(n - 2)$  is \_\_\_\_\_.

[a] 1

[b] 2

[c] 3

[d] 4

7. The square matrix A is a skew symmetric matrix if \_\_\_\_\_.

[a]  $A = A^T$

[b]  $A = -A^T$

[c]  $A = (A^T)^T$

[d]  $A = (A^T)^{-1}$

8. If  $a, b$  are the eigen value of A then eigen values of  $A^m$  are \_\_\_\_\_.

[a]  $a^m, b^m$

[b]  $\frac{1}{a^m}, \frac{1}{b^m}$

[c]  $\frac{b}{a^m}, \frac{a}{b^m}$

[d]  $a^m + b^m, a^m - b^m$

9. The number of edges in the complete graph  $K_4$  is \_\_\_\_\_.

[a] 2

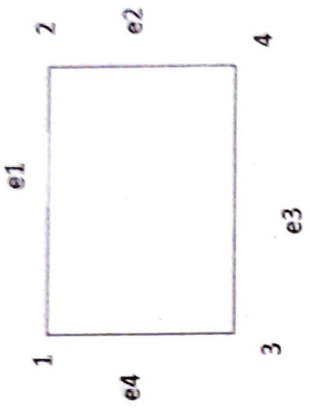
[b] 4

[c] 6

[d] 8



10. The adjacency matrix of the graph G is \_\_\_\_\_.



[a]  $\begin{pmatrix} 0 & 1 & 1 & 0 \\ 1 & 0 & 0 & 1 \\ 0 & 0 & 0 & 1 \\ 0 & 1 & 1 & 0 \end{pmatrix}$

[c]  $\begin{pmatrix} 0 & 1 & 1 & 0 \\ 1 & 0 & 0 & 1 \\ 1 & 0 & 0 & 1 \\ 1 & 0 & 1 & 0 \end{pmatrix}$

[b]  $\begin{pmatrix} 0 & 0 & 1 & 0 \\ 1 & 0 & 0 & 0 \\ 1 & 0 & 0 & 1 \\ 0 & 1 & 1 & 0 \end{pmatrix}$

[d]  $\begin{pmatrix} 0 & 1 & 1 & 0 \\ 1 & 0 & 0 & 1 \\ 1 & 0 & 0 & 1 \\ 0 & 1 & 1 & 0 \end{pmatrix}$

SECTION - B [5 X 7 = 35]

Answer ALL the Questions.

11. a) State and prove the De Morgan's Laws.

[OR]

b) If A and B are two sets then prove that (i)  $A - B = A \cap B'$ .

(ii)  $A - B = A \Leftrightarrow A \cap B = \emptyset$ .

12. a) Draw the parsing tree for the formula  $((\neg p) \rightarrow (p \wedge q)) \wedge (\neg(p \rightarrow q))$ .

[OR]

b) Prove that  $(p \rightarrow q) \Rightarrow (\neg q \rightarrow \neg p)$ .

13. a) Solve  $D(n) - 8D(n-1) + 16D(n-2) = 0$  where  $D(2) = 16, D(3) = 80$ .

[OR]

- b) For the sequence defined by  $A(k) = k^2 - k, k \geq 0$ , obtain the recurrence relation of order two if  $A$  is a sequence of integers.
14. a) Verify whether the following system is consistent.

$$x + 2y + z = 11, 4x + 6y + 5z = 8, 4x + 4y + 6z = 38$$

[OR]

- b) Find the inverse of  $\begin{pmatrix} 2 & 4 & -1 \\ 0 & 3 & 7 \\ 8 & 1 & 5 \end{pmatrix}$  using elementary row operations.

15. a) i) Prove that the sum of the degrees of the points of a graph  $G$  is twice the number of lines.  
 ii) Show that in any group of two or more people, there are always two with exactly the same number of friends inside the group.

[OR]

- b) Let  $G$  be a  $(p, q)$  graph. Prove that the following statements are equivalent.
- $G$  is a tree.
  - Every two points of  $G$  are joined by a unique path.
  - $G$  is connected and  $p = q + 1$ .
  - $G$  is acyclic and  $p = q + 1$ .

SECTION - C

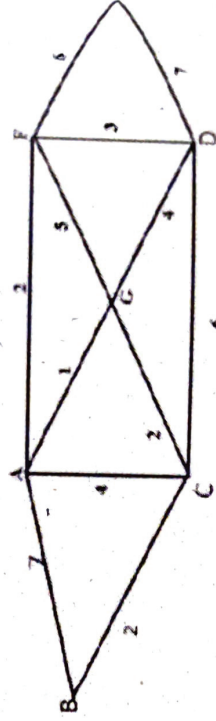
[3 X 10]

Answer Any THREE Questions.

16. a) Define symmetric difference of two sets.  
 (b) If  $A = \{d, e, f, g\}$ ,  $B = \{a, c, f\}$  then find  $A \Delta B$ .  
 (c) If  $A$  and  $B$  are sets then prove that  $A \Delta B = (A \cup B) - (A \cap B)$ .
17. Define tautology and contradiction. Verify whether  $((p \rightarrow q) \wedge (q \rightarrow r)) \rightarrow (p \rightarrow r)$  is a tautology.
18. Solve:  $S(k) - 3S(k-1) - 4S(k-2) = 4^k$ .
19. Find the eigen values and the eigen vectors of the matrix

$$\begin{pmatrix} 8 & -6 & 2 \\ -6 & 7 & -4 \\ 2 & -4 & 3 \end{pmatrix}$$

20. Find the shortest distances from  $A$  to all the other vertices of a graph



**SECTION – C [ 3 X 10 = 30 ]**

**Answer Any THREE Questions.**

16. How will you classify computer system ? Explain.
17. Discuss in detail about the secondary memory.
18. Explain in detail about Hexadecimal number system.
19. How to convert Hexadecimal to Binary and Binary to Hexadecimal?
20. Explain about different types of software.

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**END SEMESTER EXAMINATION – NOVEMBER 2020**

**Programme : B.Com/BBBA/B & I**      **Date : 19.01.2021**  
**Course Code: 17UCSN11**      **Time : 10 am. to 1 pm.**  
**Course Title : Fundamentals of Computer**      **Max Marks : 75**

**SECTION – A [10 X 1 = 10] -**

**Answer ALL the Questions.**

**Choose the Correct Answer.**

1. A computer can be defined as an electronic device that can be \_\_\_\_\_  
[a] Carry out arithmetical operation  
[b] Carry out logical function  
[c] accept and process data using a set of stored instructions  
[d] present information on a VDU
2. Indicate which of the following is not true about 4GL \_\_\_\_\_.  
[a] 4GL does not support a high-level of screen interaction  
[b] Many database management system packages support 4GLs  
[c] A 4GL is a software tool which is written, possibly , in some third generation  
[d] None of the above.



3. The difference between memory and storage is that the memory is \_\_\_\_\_ and storage is \_\_\_\_\_.
- [a] temporary, permanent  
[b] permanent, temporary  
[c] slow, fast  
[d] none of the above
4. Which of the following holds the ROM, CPU, RAM and expansion cards?
- [a] Hard disk  
[b] Floppy disk  
[c] Mother board  
[d] None of the above
5. Decimal number system has \_\_\_\_\_ symbols.
- [a] 15  
[b] 16  
[c] 2  
[d] 10
6. After counting 0, 1, 10, 11 the next binary number is \_\_\_\_\_.
- [a] 12  
[b] 100  
[c] 101  
[d] 110
7. Convert decimal number (100) 10 to octal equivalent will give \_\_\_\_\_.
- [a] 100  
[b] 120  
[c] 144  
[d] 154
8. The binary equivalent of (64) 10 is \_\_\_\_\_.
- [a] 11000000  
[b] 1100000  
[c] 1000000  
[d] 1100010
9. The software used to drive microprocessor-based systems is called:
- [a] assembly language programs  
[b] firmware  
[c] BASIC interpreter instructions  
[d] flowchart instructions

10. They normally interact with the system via user interface provided application software \_\_\_\_\_.
- [a] Programmers  
[b] Developers  
[c] Users  
[d] Testers

**SECTION - B**

**Answer ALL the Questions.**

[5X]

11. a) What is the Computer? Explain. [OR]
- b) List out the characteristics of computer.
12. a) What are the components of the computer systems? [OR]
- b) Discuss about different types of Memory.
13. a) What are the positional number systems and what is their base? [OR]
- b) What is an Octal number system?
14. a) Convert binary number 100110 in to its octal equivalent. [OR]
- b) Convert the following Decimal numbers to Hexadecimal numbers  
i) (35)<sub>10</sub> ii) (31)<sub>10</sub>
15. a) What is the software? [OR]
- b) What is Logical System architecture?

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## **END SEMESTER EXAMINATION – NOVEMBER 2020**

**Programme :** B.Com./B.Sc. (Forensic Science)      **Date:** 19.01.2021

**Course Code:** 17UCSN21/19UCSN21      **Time:** 2 pm. to 5 pm.

**Course Title :** INTRODUCTION TO INTERNET      **Max Marks :** 75

**SECTION – A**      [10 X 1 = 10]

**Answer ALL the Questions.**

**Choose the Correct Answer.**

1. Initially Internet was used for \_\_\_\_\_.  
[a] Medicine      [b] Military Intelligence  
[c] Communications      [d] Modem
2. For connecting to Internet, the communication is done through \_\_\_\_\_ lines.  
[a] Telephone      [b] Communication  
[c] Modem      [d] Internet Gateway
3. A computer connected through network is called \_\_\_\_\_.  
[a] Server      [b] Domain  
[c] Gateway      [d] Node
4. \_\_\_\_\_ topology is a combination of two or more topologies.  
[a] Star      [b] Tree  
[c] Hybrid      [d] Ring

Which of the following is not a search engine?

- [a] Yahoo
- [b] Internet Explorer
- [c] Lycos
- [d] Google

\_\_\_\_\_ are able to search for different information on the net.

- [a] Search Engines
- [b] Browser
- [c] Gateway
- [d] Hyperlink

Who is the father of email?

- [a] Tim Berners Lee
- [b] Charles Babbage
- [c] Paul Buchheit
- [d] Ray Tomlinson

Storage area for E-mail messages is called \_\_\_\_\_.

- [a] Store
- [b] Folder
- [c] File
- [d] Mail Box

Web pages starts with which of the following tag?

- [a] <BODY>
- [b] <TITLE>
- [c] <HTML>
- [d] <FORM>

The body tag usually used after \_\_\_\_\_.

- [a] Title tag
- [b] Head Tag
- [c] EM Tag
- [d] Form Tag

[5 X 7 = 35]

**SECTION - B**

**Answer ALL the Questions.**

1) Explain in detail about basic Internet terminologies.

[OR]

2) Write a brief note on application of Internet.

12. a) Elaborate note on DNS with example.

[OR]

b) Explain in detail about network topologies.

13. a) Write a brief note on basic features of web browsers.

[OR]

b) What is browser? Explain about working with a browser.

14. a) Explain in detail about parts of email text with example.

[OR]

b) Write a brief note on E-mail clients.

15. a) Discuss about HTML list tags and its types with example.

[OR]

b) Explain in detail about table tag and its attributes.

**SECTION - C**

[3 X 10 = 30]

**Answer Any THREE Questions.**

16. Discuss in detail about WWW.

17. Define network. Discuss about network and its types with example.

18. Explain in detail about Search engines and its types with example.

19. Describe in detail about E-mail Protocols with example.

20. Discuss about HTML formatting tags with example.



13. a) Write a note on Secularism.

அ) மதச்சார்பின்மை குறித்து ஒரு குறிப்பு எழுதுக.

[அல்லது]

b) Explain the importance of social justice.

ஆ) சமூக நீதியின் முக்கியத்துவத்தை விளக்குக.

14. a) Discuss the various aspects of team spirit.

அ) கூட்டு முயற்சியின் பல்வேறு அம்சங்களைப் பற்றி விவாதிக்கவும்.

[அல்லது]

b) Explain the terms 'Integrity' and 'Commitment'

ஆ) 'ஒருமைப்பாடு' மற்றும் 'அர்ப்பணிப்பு' என்ற சொற்களை விளக்குக.

15. a) Explain the important values created by family.

அ) குடும்பத்தால் உருவாக்கப்பட்ட முக்கியமான மதிப்புகளை விளக்குக.

[அல்லது]

b) Discuss about role models.

ஆ) முன்மாதிரிகள் பற்றி விவாதிக்கவும்.

### SECTION - C

[ 3 X 10 = 30 ]

Answer Any THREE Questions.

16. Explain the need for value education in detail.

மதிப்புக்கல்வியின் அவசியத்தைப் பற்றி விரிவாக விளக்குக.

17. Discuss about love and justice in Christianity.

கிறிஸ்தவத்தில் அன்பு மற்றும் நீதி பற்றி விவாதிக்கவும்.

18. Write in detail about human rights.

மனித உரிமைகள் பற்றி விரிவாக எழுதுக.

19. Explain the following professional values.

(a) Accountability (b) Willingness to Learn

பின்வரும் தொழில்முறை மதிப்புகளை விளக்குக.

(அ) பொறுப்புணர்ச்சி (ஆ) கற்றுக்கொள்ள விருப்பம்

20. Describe how values can be promoted through educational institutions.

கல்வி நிறுவனங்கள் மூலம் மதிப்புகளை எவ்வாறு மேம்படுத்தலாம்

என்பதை விவரிக்கவும்.

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## G.T.N. ARTS COLLEGE (AUTONOMOUS)

(Affiliated to Madurai Kamaraj University)  
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### END SEMESTER EXAMINATIONS - APRIL 2021

Programme: All UG Final Year Students

Date: 16.06.2021

Course Code: 17UVVEV61

Time: 10 am - 1 pm

Course Title: Value Education

Max. Marks :75

#### SECTION - A

[10 X 1 = 10]

Answer ALL the Questions.

Choose the Correct Answer.

1. Taking care of one's body, so that it can take care of the person is called \_\_\_\_\_ values.

[a] Mental [b] Physical

[c] Social [d] Spiritual

ஒருவரின் உடலை கவனித்துக் கொள்வது மற்றும் அந்த நபரை கவனித்துக் கொள்வது ----- மதிப்புகள் என்று அழைக்கப்படுகிறது.

[அ] மனம் [ஆ] உடல்

[இ] சமூக [ஈ] ஆன்மீக

2. \_\_\_\_\_ means working without having command from anyone.

[a] Self confidence [b] Self Discipline

[c] Self-initiative [d] Empathy

யாரிடமிருந்தும் கட்டளை இல்லாமல் வேலை செய்வது ----- என்பதாகும்.

[அ] தன்னம்பிக்கை [ஆ] சுய ஒழுக்கம்

[இ] சுய முயற்சி [ஈ] பச்சாதாபம்

3. \_\_\_\_\_ is the retirement stage in the life of a Hindu.

[a] Vanaprastha [b] Brahmacharya

[c] Grihastha [d] Sanyasa

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----- என்பது ஒரு இந்து வாழ்க்கையின் ஓய்வூதிய நிலையாகும்.

- [அ] வணப்பிரஸ்தா [ஆ] பிரம்மச்சாரியா  
[இ] கிரிஷ்ணஸ்தா [ஈ] சன்யாசா

4. \_\_\_\_\_ is the holy scripture of Christianity.

- [a] Quran [b] Bagavad Gita  
[c] Adi-Granth [d] Bible

கிறிஸ்தவத்தின் புனித நூல் ----- ஆகும்.

- [அ] குர்ஆன் [ஆ] பகவத் கீதை  
[இ] ஆதி - கிரந்த [ஈ] பைபிள்

5. \_\_\_\_\_ is a government of the people, by the people and for the people.

- [a] Secularism [b] Socialism  
[c] Democracy [d] Gender Justice

----- என்பது மக்களின், மக்களால், மக்களுக்காக அமைக்கப்பட்ட அரசாங்கமாகும்.

- [அ] மதச்சார்பின்மை [ஆ] பொது உடைமை  
[இ] ஜனநாயகம் [ஈ] பாலின நீதி  
[a] five [b] six  
[c] seven [d] eight

6. Our Constitution guarantees \_\_\_\_\_ fundamental rights.

- [a] five [b] six  
[c] seven [d] eight

நம் அரசியலமைப்பு ----- அடிப்படை உரிமைகளுக்கு உத்தவாதம் அளிக்கிறது.

- [அ] ஐந்து [ஆ] ஆறு  
[இ] ஏழு [ஈ] எட்டு  
[a] Competence [b] Team spirit  
[c] Accountability [d] Honesty

7. \_\_\_\_\_ is the state or quality of being adequately or well qualified.

- [a] Competence [b] Team spirit  
[c] Accountability [d] Honesty

----- என்பது போதுமான அல்லது நல்ல தகுதி வாய்ந்த தரமாகும்.

- [அ] திறன் [ஆ] கூட்டு முயற்சி  
[இ] பொறுப்புணர்ச்சி [ஈ] நேர்மை

8. Who should follow the professional codes of conduct evolved by the Bar council?

- [a] Teacher [b] Doctor  
[c] Accountants [d] Lawyer

வழக்குரைஞர் சமூகம் உருவாக்கிய தொழில் முறை நடத்தை நெறிமுறைகளை யார் பின்பற்ற வேண்டும்?

- [ஆ] மருத்துவர் [ஈ] வழக்கறிஞர்  
[அ] ஆசிரியர் [இ] கணக்காளர்கள்

9. \_\_\_\_\_ is one in which parents and their unmarried sons and da live together?

- [a] Nuclear family [b] Extended fami  
[c] Joint family [d] Large Joint far

----- என்பது பெற்றோர்களும் அவர்களுடைய திருமணமாக

- மகள்களும் ஒன்றாக வாழ்வதாகும்.  
[ஆ] நீட்டிக்கப்பட்ட [ஈ] பெரிய கூட்டுக்  
[அ] தனிக் குடும்பம் [இ] கூட்டுக் குடும்பம்

10. Who is the founder of Microsoft?

- [a] Narayan Murthy [b] Bill Gates  
[c] Premji [d] Steve Jobs

மைக்ரோசாப்டின் நிறுவனர் யார்?

- [அ] நாராயண் மூர்த்தி [ஆ] பில்கேட்ஸ்  
[இ] பிரேம்ஜி [ஈ] ஸ்டீவ் ஜாப்ஸ்

## SECTION - B

Answer ALL the Questions.

11. a) Discuss the significance of values.

அ) மதிப்புகளின் முக்கியத்துவம் பற்றி விவாதிக்கவும்.

[அல்லது]

b) Write a note on self confidence.

ஆ) தன்னம்பிக்கை குறித்து ஒரு குறிப்பு எழுதுக.

12. a) Explain the five principles of Islam.

அ) இஸ்லாமின் ஐந்து கொள்கைகளை விளக்குக.

[அல்லது]

b) What are the duties of a Sikh?

ஆ) ஒரு சீக்கியரின் கடமைகள் என்ன?



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# G.T.N. ARTS COLLEGE (AUTONOMOUS)

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## END SEMESTER EXAMINATION –APRIL 2021

Programme: B.Sc. Computer Science

Date: 17.6.2021

Course Code: 17UCSC61

Time: 10 am to 1 pm.

Course Title : Data Communication Networks Max. Marks :75

### SECTION – A

[10 X 1 = 10]

Answer ALL the Questions.

Choose the Correct Answer.

- In a \_\_\_\_\_ connection, three or more devices share a link.  
[a] multipoint  
[b] point to point  
[c] Both A and B  
[d] None of the above
- Which topology requires a central controller or hub?  
[a] Mesh  
[b] Star  
[c] Bus  
[d] Ring
- In a fiber-optic cable, the signal is propagated along the inner core by \_\_\_\_\_  
[a] reflection  
[b] refraction  
[c] modulation  
[d] none of the above
- The divisor in a cyclic code is normally called the \_\_\_\_\_  
[a] degree  
[b] generator  
[c] redundancy  
[d] bit



5. \_\_\_\_\_ control refers to methods of error detection and correction.

- [a] Flow
- [b] Transmission
- [c] Error
- [d] Line

6. In \_\_\_\_\_ protocols, we use byte stuffing.

- [a] character oriented
- [b] bit oriented
- [c] flow oriented
- [d] byte oriented

7. \_\_\_\_\_ is the most widely used local area network protocol.

- [a] Token ring
- [b] Token bus
- [c] Both A and B
- [d] Ethernet

8. \_\_\_\_\_ requires that each station first listen to the medium before sending.

- [a] MA
- [b] CDMA
- [c] CSMA
- [d] FDMA

9. The simplest type of switching fabric is the \_\_\_\_\_ switch.

- [a] crosspoint
- [b] TSI
- [c] STS
- [d] crossbar

10. Circuit switching takes place at the \_\_\_\_\_ layer.

- [a] data line
- [b] physical
- [c] network
- [d] transport

**SECTION - B [5 X 7 = 35]**

**Answer ALL the Questions.**

11. a) Illustrate the components of data communication system.

[OR]

b) Categorize the basic topologies with neat diagram.

12. a) What are the methods used to propagate radio waves? Explain. [OR]

b) Write a brief note on error detection techniques with example.

13. a) Describe about line discipline. [OR]

b) Write about the HDLC and its station types.

14. a) Explain about Fast Ethernet implementation with example. [OR]

b) Give a brief account on token ring.

15. a) Mention the types of switches used in circuit switching. [OR]

b) Write an account on ISDN services with example.

**SECTION - C**

[3 X 10 = ]

**Answer Any THREE Questions.**

16. Discuss in detail about OSI reference model with neat diagram.

17. Elaborate note on guided media and its types with example.

18. Describe in detail about flow control with its types.

19. Detail account on FDDI with example.

20. Explain in detail about Packet switching.

**SECTION - C**

[ 3 X 10 = 30 ]

**Answer Any THREE Questions.**

16. Describe about applications of computer graphics in detail.
17. Briefly explain in detail about Midpoint Circle Generating Algorithm.
18. Explain in detail about Curve Attributes.
19. Discuss in detail about 2D Composite Transformation.
20. Write short notes on: (i) Text Clipping (ii) Exterior Clipping.

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Reg. No:



**G.T.N. ARTS COLLEGE** (AUTONOMOUS)

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**END SEMESTER EXAMINATION - APRIL 2021**

Programme : B.Sc. Computer Science

Date: 18.6.2021

Course Code: 17UCSC62

Time: 10 am. to 1 pm.

Course Title : Computer Graphics

Max. Marks : 75

**SECTION - A**

[10 X 1 = 10]

**Answer ALL the Questions.**

**Choose the Correct Answer.**

1. CAD Stands for \_\_\_\_\_.

- [a] Computer Aided Design
- [b] Computer Added Design
- [c] Computer Aided Delegate
- [d] Computer Apply Design

2. \_\_\_\_\_ scanners collect digital data from radiation emitted from ingested radionuclides and plot color coded images.

- [a] Computer surgery
- [b] Nuclear medicine
- [c] PET
- [d] CT

3. Which of the following methods is the fastest pixel position calculating method?

- [a] Bresenham's line algorithm
- [b] DDA line algorithm
- [c] Mid-point algorithm
- [d] Circle algorithm

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4. The mid-point ellipse method is applied throughout the first quadrant in \_\_\_\_\_ points.

- [a] 1
- [c] 3

- [b] 2
- [d] 4

5. Adjust the shape of the line ends to give them a better appearance by adding \_\_\_\_\_.

- [a] Line cap
- [c] Line Marker

- [b] Line Curve
- [d] Line text

6. The fill color is combined with the background colors are referred to \_\_\_\_\_ algorithms.

- [a] Character fill
- [c] Marker fill

- [b] Soft fill
- [d] Line fill

7. The two-dimensional translation equation in the matrix form is \_\_\_\_\_.

- [a]  $P' = P + T$
- [c]  $P' = P * T$

- [b]  $P' = P - T$
- [d]  $P' = p$

8. \_\_\_\_\_ is a rigid body transformation that moves objects without deformation.

- [a] Rotation
- [c] Translation

- [b] Scaling
- [d] All of the mentioned

9. \_\_\_\_\_ the application program and input devices operate independently.

- [a] Request mode
- [c] Event mode

- [b] Sample mode
- [d] Time mode

10. How many methods of text clipping are there?

- [a] 5
- [c] 3

- [b] 4
- [d] 2

### SECTION - B

[5 X 7 =

Answer ALL the Questions.

11. a) Explain about Raster Scan displays.

[OR]

b) Discuss about Graphical User Interface

12. a) Analyze Bresenham's Line drawing algorithm.

[OR]

b) Write short notes on Flood Fill algorithm.

13. a) Explain about Line Attributes.

[OR]

b) Illustrate about Character Attributes.

14. a) Discuss about Two-Dimensional Rotation with example.

[OR]

b) Describe about 2D Reflection and Shear.

15. a) Write about Point Clipping.

[OR]

b) Narrate Nicholl-Lee-Nicholl Line clipping algorithm with example



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## G.T.N. ARTS COLLEGE (AUTONOMOUS)

(Affiliated to Madurai Kamaraj University)

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### END SEMESTER EXAMINATIONS - April 2021

Programme: III B.Sc (CS) A & B

Date: 14.07.2021

Course Code: 17CCSC61

Time: 10am - 1pm

Course Title: Multimedia Technology

Max Marks: 75

#### SECTION - A

[5 X 2 = 10]

Answer ALL the Questions.

1. List out the types of animation.
2. Define Pro cutter?
3. List out the three snap options.
4. Define key frames.
5. Define wind space Wrap.

#### SECTION - B

[5 X 7 = 35]

Answer ALL the Questions.

6. a) Explain about modeling in detail.  
[OR]
- b) Discuss the working with files in Multimedia.
7. a) Explain about 3D Animation.  
[OR]
- b) Discuss the Modeling simple objects

8. a) Explain about the tool box and channel box with example.

[OR]

- b) Discuss the advantage and disadvantage modeling with polygon.

9. a) Explain about Auto key frames.

[OR]

- b) Explain about Delete a Frame and Frame sequence.

10. a) Discuss the Display Force object.

[OR]

- b) Discuss the wind space wrap, gravity space wrap.

#### SECTION - C

[3 X 10 = 30]

Answer Any THREE Questions.

11. Explain about Importing and Exporting in detail.
12. Discuss the 2D and 3D object with examples.
13. How do you work with Xrefs?
14. Explain function curves in the track view and motion mixer.
15. Discuss the components of the hair and Fur feature.

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**G.T.N. ARTS COLLEGE (AUTONOMOUS)**  
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**END SEMESTER EXAMINATIONS - April 2021**

Programme: B.Sc. CS      Date: 14.07.2021  
Course Code: 17CCSC51      Time: 2pm - 5pm  
Course Title: Oracle DBA      Max Marks: 75

**SECTION - A**      [5 X 2 = 10]

Answer ALL the Questions.

1. Write short note on Hardware configuration.
2. Write a short note on permanent tablespaces.
3. Define Rollback segments.
4. List any five applications in SQL.
5. When to Use Oracle Flashback?

**SECTION - B**      [5 X 7 = 35]

Answer ALL the Questions.

6. a) Explain the OEM in detail.      [OR]
- b) Explain the DBA Tools with an example.
7. a) Explain the storage structures management in detail.      [OR]
- b) Explain physical database design in detail.

8. a) Explain user privileges in detail.      [OR]

b) Explain how to monitor the database in detail.

9. a) Explain SQL Optimization in detail.      [OR]

b) List down the suggestions for database tuning.

10. a) Explain Backup Procedures with an example of your Own.      [OR]

b) Explain the overview of REDO application.

**SECTION - C**      [3 X 10 = 30]

Answer Any THREE Questions.

11. Briefly explain oracle Architecture in detail with DBA tools.
12. Explain Physical database Layouts in detail.
13. Explain creating and dropping rollback segments.
14. Explain how to manage the tables and indexes with an example.
15. How to make recovery of the database?





9. Android provides structured data persistence through a combination of \_\_\_\_\_ and \_\_\_\_\_

4. One of the most common uses for intents is to start new activities is \_\_\_\_\_

- [a] SQLite databases and Content Providers
- [b] DBMS and Content Providers
- [c] SQLite databases and Context Providers
- [d] DB and Content Providers

- [a] interior or exterior
- [b] explicitly or implicitly
- [c] all the above
- [d] none of the above

5. Action bar can be associated to \_\_\_\_\_

- [a] only fragments
- [b] only activities
- [c] package
- [d] none of the above

6. Which method is used to update the details displayed in the standard notification tray display?

- [a] setLatestEventInfo
- [b] contentView
- [c] contentIntent
- [d] all of the mentioned

7. What are the components are need to create Widget for your applications?

- [a] An XML layout resource that defines the UI
- [b] An XML file that describes the meta data associated with the Widget
- [c] A Broadcast Receiver that defines and controls the Widget
- [d] All of the mentioned

8. List out the network protocols that are supported for media streaming.

- [a] RTSP
- [b] HTTP/HTTPS
- [c] (a) only
- [d] Both (a) and (b)

10. Name the main elements of LBS \_\_\_\_\_

- [a] Location manager and location provider
- [b] Location manager and content provider
- [c] Lightweight and Three-tier
- [d] Open-source and Complex-compliant

**SECTION - B**

**Answer ALL the Questions.**

11. a) Write short note on android SDK features.

[OR]

b) What makes an android application? Explain.

12. a) Give short note on fundamentals of android user interface.

[OR]

b) Give the introduction of intent.

13. a) How to customize the action bar? Discuss.

[OR]

b) Write short note on tweened view animations.

14. a) Describe about the creating the widget XML layout resource.

[OR]

b) Explain camera settings and image parameters.