



**K.L.E. Society's
Raja Lakhamagouda Science Institute
(Autonomous)
BELAGAVI.**

SUBJECT

**BCA III - Semester
Nov-2017**

QUESTION PAPER BOOKLET

Reg. No.

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KLE Society's



**Raja Lakhamagouda Science Institute (Autonomous),
Belagavi.**

Third Semester BCA Degree Examination Nov - 2017

C04: ADDITIONAL ENGLISH

Duration: 3 Hrs

Max Marks: 70

I. Answer any FIVE of the following:

2X5=10

1. What does the maze represent in the book who moved my cheese?
2. Mention the Author of the Book "Peaks & Valleys".
3. Mention the first three habits from the book 7 habits of highly effective people and what do they symbolize?
4. What is 80/20 rule?
5. Who is the author of the book, Think and Grow rich?
6. Mention four characteristics of Leader.
7. Which are the three enemies of success according to the book, Think and grow rich?

II. Answer any SIX of the following :

5X6=30

8. Explain the 80/20 rule given in the book Eat that Frog.
9. Mention all the characteristics of Leader, given by Napoleon Hill in his book Think and Grow Rich.
10. Briefly explain the first three habits from the book 7 Habits of Highly Effective People.
11. Briefly explain what is meant by Peaks in Professional Life.
12. Briefly explain the nature or personality of Hem and Haw from the book, Who Moved my Cheese.
13. Briefly explain what is meant by valleys in Personal Life.
14. What is Goal Setting? Explain the steps how you will set your Goals.
15. Identify a situation in which you desire greater teamwork and synergy. What conditions would need to exist to support synergy? What can you do to create those conditions?

Important Note: 1. On completing answers, compulsorily draw diagonal lines on the remaining blank pages.
2. Any revealing of identification, appeal to valuator and / or equations written will be treated as malpractice.

III. Answer any THREE of the following:

10X3=30

16. Has Johnson's book helped you see how change can be beneficial...in life in general, as well as in your own work or personal life? Elaborate with examples.
17. 'Peaks and Valley' Book teaches that the key to a balanced life is learning life's lessons during the down times and appreciating life's blessings during the good times. Explain with your life experiences.
18. Discuss Covey's definition of "habits" and the role they play in our lives. What are habits, as Covey defines them? Elaborate with your own life experience.
19. Take a recent situation you had at work and apply the four special behaviors of optimism.
- What was the good in this situation?
 - What was the valuable lesson?
 - What was the solution/what's the next step?
 - What are your goals and how does this situation contribute to them?
20. Explain the six steps to turning a desire for wealth into "its financial equivalent" according to Napoleon Hill.

**Raja Lakhamagouda Science Institute (Autonomous),
Belagavi.****Third Semester BCA Degree Examination Nov - 2017****C10: TECHNICAL COMMUNICATION AND ETHICS**

Duration: 1½ Hrs

Max Marks: 70

Instructions to candidates:

1. Each question carry '1' mark.
2. Students have to attempt any "70" questions

1. Presentation should have the format that includes
a. Main body b. Intoduction c. Conclusion d. All
2. _____ are remarks made by others who are authoritative or articulate and could make a point more effectively than we could, on our own.
a. Testimony b. Analogy c. Statistics d. None
3. The communication cycle is complete only when there is _____ from the receiver
a. Message b. Feedback c. Response d. None
4. Formal communication can flow in _____ directions
a. Vertical b. Lateral c. Diagonal d All
5. Negligence is the failure to do what a reasonable person would do, or doing something that a reasonable person would not do.
a. True b. False
6. If the receiver does not receive the intended message by the sender than the communication becomes
a. Interruption b. Miscommunication c. Incomplete d. None
7. We sometimes say that we cannot find words to express our feelings, it is because language is
a. Ab-tract b. Restricted c. Artificial d. Redundant
8. The work related communication of an organization with people outside the organization is called _____ communication
a. Internal-operational b. External-operational c. Personal d. Mass
9. Language is classified into _____ types
a. 6 b. 5 c. 7 d. 8
10. The liability of manufacturers, sellers, lessors, and others for injuries caused by defective products is commonly referred to as strict liability
a. True b. False
11. The _____ Act regulates the operations of credit-reporting bureaus
a. Fair credit reporting b. Privacy Act c. FOIA d. None
12. Code Red, SirCam and Melissa are examples for
a. Virus b. Phishing c. Trojan horses d. Worms
13. A partial list of IT specialists include
a. Programmers b. Software engineers
c. Chief information officers(CIOs) d. All
14. In the thesis in the _____ section the draft is written
a. Outline b. Timetable c. Iteration d. All
15. _____ is essential as it measures the effectiveness of communication
a. Message b. Language c. Feedback d. None
16. Independent testing performed by trained end users to ensure that the system operates as they expect.
a. Static testing b. Integration testing c. System testing d. User acceptance testing

17. ____ is defined as the exchange of information, ideas and knowledge between a sender & receiver through an accepted code of symbols.
 a. Message b. Communication c. Signals d. None
18. The ____ act set standards for access to stored e-mail and other electronic communications and records
 a. ECPA b. FISA c. USA patriot d. None
19. The ____ section in a thesis varies enormously from thesis to thesis and may be absent in theoretical thesis
 a. References b. Appendices c. Materials & methods d. All
20. The ____ type of meeting style is suitable for annual general body meetings or that involve large number of participants
 a. Boardroom style b. Conference/theatre style c. Both a & b d. None
21. ____ is the study of physical space in interpersonal relations
 a. Proxemics b. Chronemics c. Kinesics d. None
22. The type of listening needed in the classroom when students have to listen to the lecturer is
 a. Appreciative listening b. Comprehensive listening
 c. Critical listening d. Empathetic listening
23. ____ once installed, the attacker can gain full control of the system
 a. Rootkit b. Botnet c. Viruses d. All
24. The ____ act required the telecommunications industry to build tools in its products so federal investigators can use to secretly listen to a conversation
 a. CALEA b. ECPA c. FISA d. None
25. In the communication cycle the first step is ____ where the sender creates the message body to be sent
 a. Creation b. Formulation c. Writing d. None
26. Information flows in an organization both formally and informally
 a. True b. False
27. The Fair Credit Reporting Act provides the public with the means to gain access to certain government records and is often used by whistle-blowers
 a. True b. False
28. ____ is the process of taking something apart in order to understand it, build a copy of it, or improve it.
 a. Intellectual property b. Plagiarism c. Reverse Engineering d. None
29. In a dissertation ____ present the finding clearly
 a. References b. Results c. Conclusion d. Methodology
30. Ethics is a set of beliefs about right and wrong behaviour within a society
 a. True b. False
31. ____ form of communication takes place within an individual
 a. Interpersonal b. Intrapersonal c. Extrapersonal d. Organizational
32. ____ is a business information system which is used to improve decision making in a variety of industries.
 a. Decision support system b. Quality management c. Software quality d. None
33. The essentials for an effective communication are
 a. Well-defined communication environment c. Selection of an appropriate channel
 b. Correct encoding and decoding of message d. All
34. ____ is the degree to which a software product meets the needs of its users.
 a. Software defect b. Software quality c. Quality management d. None
35. One has to be linguist to acquire good language skill
 a. True b. False
36. The ____ can be programmed to block e-mail with certain kinds of attachments
 a. Server b. Botnet c. Firewall d. None

37. ____ is the act of stealing someone's ideas or words and passing them off as one's own.
 a. Intellectual property b. Plagiarism c. Reverse Engineering d. None
38. The ____ in a dissertation puts the current work into context
 a. Introduction b. Methodology c. Literature survey d. None
39. ____ are habits of unacceptable behaviour
 a. Virtues b. Vices c. Both a & b d. None
40. Confidential data describes individual employees and information about customers
 a. True b. False
41. ____ is an extremely inexpensive method of sending unsolicited e-mail for marketing used by many legitimate organizations.
 a. Spam b. Phishing c. Firewall d. None
42. ____ testing involves viewing the software unit as a device that has expected input and output behaviours but whose internal workings are unknown.
 a. Static testing b. Black box testing c. White box testing d. Integration testing
43. The content in a communication once formed is called ____
 a. Information b. Message c. Body d. None
44. A meeting called to solve a problem is an example for
 a. Informational meeting b. Decision-making meeting c. Both a & b d. None
45. A dissertation normally does not exceed ____ words
 a. 10000 b. 15000 c. 20000 d. 35000
46. Language is ____ because it represents generalized ideas of things or thoughts
 a. Abstract b. Restricted c. Artificial d. Redundant
47. A ____ is a program in which malicious code is hidden inside a program.
 a. Trojan horse b. Virus c. Phishing d. None
48. The breakdown in a communication cycle is due to noise
 a. True b. False
49. A word for word account of what was said at a meeting is termed as ____ formal minutes
 a. Minimal b. Medium c. Verbatim d. None
50. Facial expression, eye contact, postures, gestures are ____ elements
 a. Verbal b. Vocal c. Visual d. Non-verbal
51. Group communication involves
 a. Many to many b. One to many c. One to one d. None
52. A cookie is a text file that a web site puts on your hard drive so that it can remember your information later
 a. True b. False
53. In the ____ form, communication takes place at different hierarchical levels
 a. Extrapersonal b. Organizational c. Intrapersonal d. Mass
54. The actions to improve the business ethics are
 a. Appointing a Corporate Ethics Officer c. Ethical Standards Set by Board of Directors
 b. Conducting Social Audits d. All
55. Whenever the language is defined, the first thing that comes to mind is ____
 a. Sentence b. Words c. Alphabets d. None
56. ____ are frequently used to distribute spam and malicious code
 a. Botnet b. Firewall c. Viruses d. None
57. The patterns used to organize main body in a presentation are
 a. Chronological b. Categorical c. Cause & effect d. All
58. In a GD there are few types of leaders, they are
 a. Authoritative b. Amiable c. Democratic d. All
59. In a language every symbol is attached to a particular thought or thing called a ____
 a. Picture b. Description c. Referent d. None

Reg. No.

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**Raja Lakhamagouda Science Institute (Autonomous),
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Third Semester BCA Degree Examination Nov - 2017

C52: OOP USING C++

Duration: 3 Hrs

Max Marks: 70

Instructions to candidates:

1. Attempt all Questions.

I. Answer any FIVE of the following:

2X5=10

1. State the applications of OOP.
2. What is inline function? Give example.
3. WAP to add two numbers using function overloading.
4. Write the general form of a class declaration and give example.
5. What is default argument? State its advantage.
6. List the operators that cannot be overloaded in C++
7. What is exception? State the advantage of using exception handling in program.

II. Answer any SIX of the following :

5X6=30

8. Compare and contrast POP and OOP.
9. Explain memory allocation for the object of same class with neat diagram.
10. Explain the different methods to define the member function of the class with example?
11. State the difference between constructors and destructors.
12. WAP to concatenate two strings by overloading + operator.
13. WAP to implement multi-level inheritance.
14. Explain try, throw and catch with an example.
15. WAP to calculate factorial of a number using command line argument.

III. Answer any THREE of the following:

3X10=30

16. Explain the basic concept of Object Oriented Programming.
17. WAP to evaluate postfix expression using class and object.
18. What is Inheritance? Explain different types of Inheritance
19. Write a program to:
 - a. Perform sequential search using class template.
 - b. Swap two numbers using function template.
20. WAP to overload binary addition and subtraction operator.



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**Third Semester BCA Degree Examination Nov - 2017
C54: COMPUTER ORGANIZATION & ARCHITECTURE**

Duration: 3 Hrs

Max Marks: 70

Instructions to candidates:

- 1) Draw Neat diagrams wherever necessary
- 2) Give solutions for numerical questions with steps.

I. Answer any FIVE of the following:

2X5=10

1. Define Micro – operation.
2. What is an IOP?
3. What is a Multiplexer?
4. Give the classification of memories.
5. What is a full Adder?
6. What is Stack?
7. Define Addressing Mode. List the types of addressing modes.

II. Answer any SIX of the following :

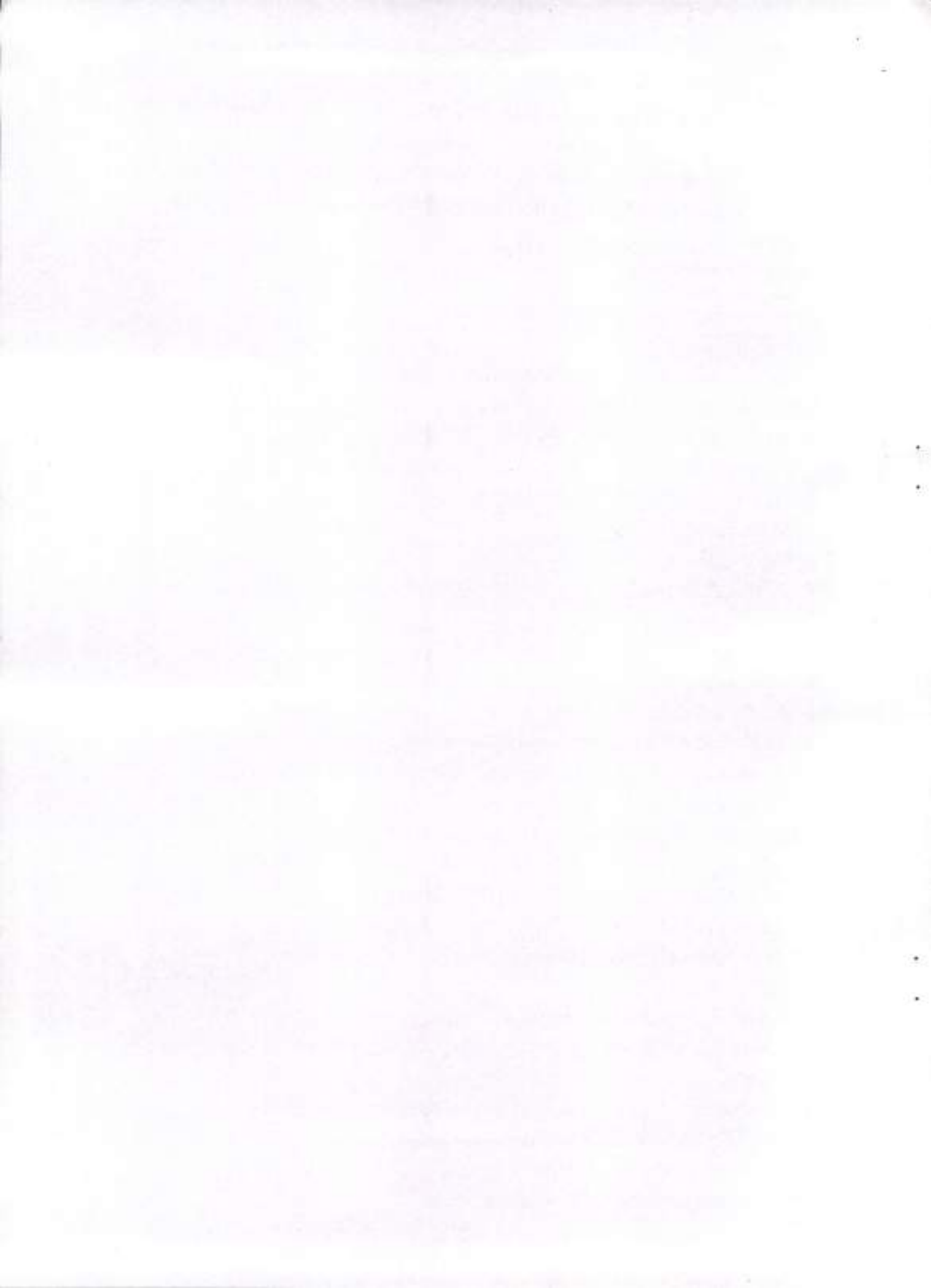
5X6=30

8. List Logical Micro – Operations. Give examples.
9. Explain different number systems. Give example for each.
10. Explain various registers used in basic computer.
11. Explain Zero, One, Two, Three address instructions with example.
12. Write short note on Cache Memory.
13. Problems on number system conversions.
 - a) $(1101010)_{(2)} = ?_{(8)}$
 - b) $(BCA)_{(16)} = ?_{(10)}$
 - c) $(27)_{(8)} = ?_{(2)}$
 - d) $(85)_{(10)} = ?_{(16)}$
 - e) $(22)_{(10)} = ?_{(2)}$
14. Explain different memory reference instructions.
15. With a neat diagram explain Input – Output configuration.

III. Answer any THREE of the following :

10X3=30

16. Simplify the following function using K-Map in sop form. Draw logic diagram
 $f(a, b, c, d) = \Sigma (0, 2, 8, 9, 10, 11, 13, 15)$
17. With a neat diagram, explain General Register Organization.
18. Explain DMA transfer in a computer system.
19. Design and explain in detail 8:1 MUX.
20. Draw the flowchart of Instruction cycle.



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Instructions to candidates:

1. Attempt all Questions.

I. Answer any FIVE of the following:

2X5=10

1. Define operating system? Give example.
2. Briefly explain list command with options.
3. Briefly explain copy command with options example.
4. Briefly explain save and abort options in vi editor
5. List wild-cards offered by SHELL and explain any one briefly.
6. What are Process States and Zombies?
7. Define inode and list its attributes

II. Answer any SIX of the following :

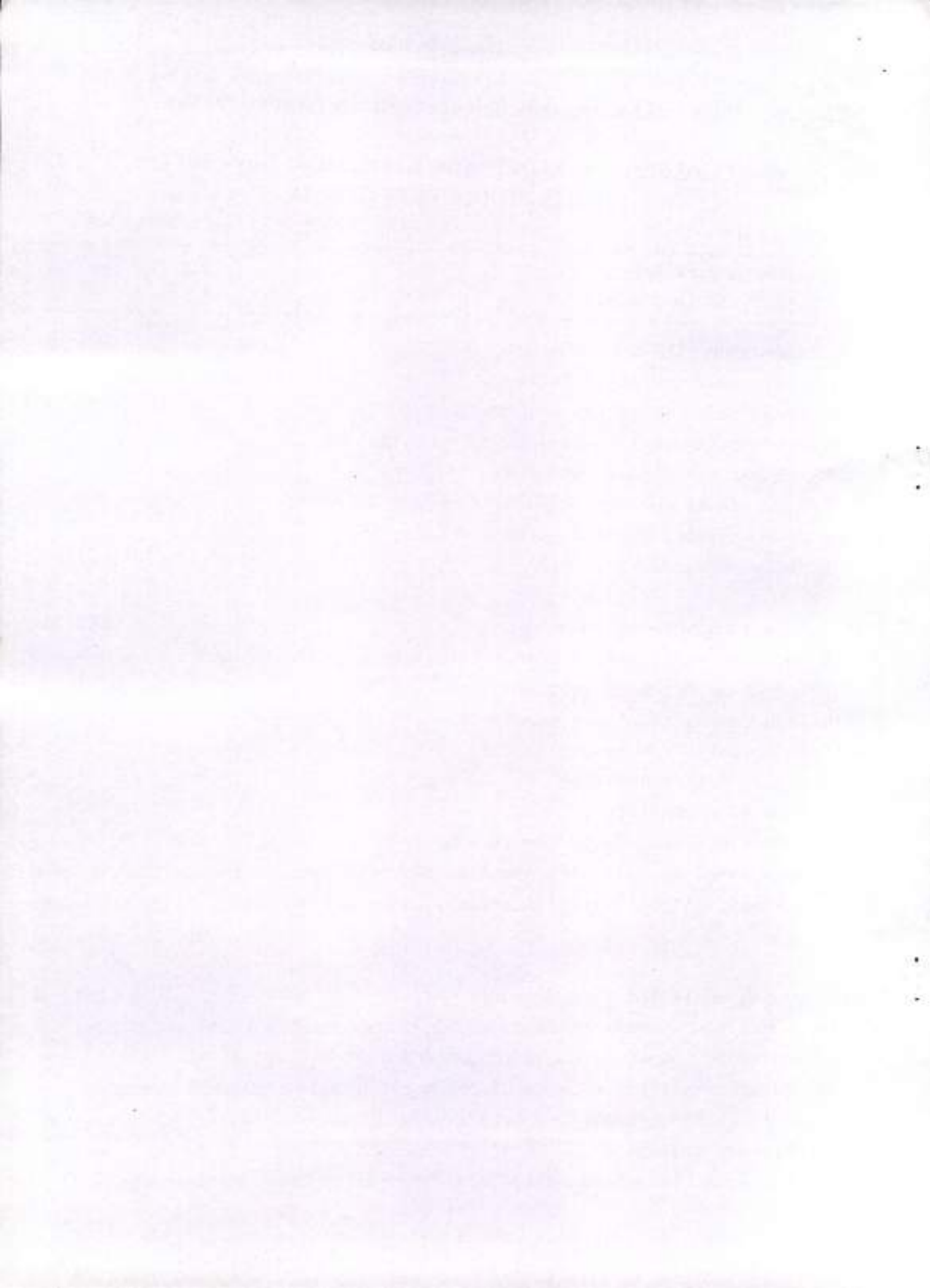
5X6=30

8. Write a shell script to print numbers in reverse order and explain the logic.
9. Write a short note on read command.
10. Write a note on modification and access times.
11. Write a note on shell interpretive cycle.
12. Explain file attributes in detail.
13. Explain the features of UNIX.
14. Explain file system of UNIX system in detail.
15. Write a shell script that gets executed and displays the message "good morning", or "good afternoon" or "good Evening" depending upon the user logs in time and explain the core logic.

III. Answer any THREE of the following:

10X3=30

16. Write a short note on for statement and while statement available in shell programming.
17. Explain basic regular expressions with grep in detail.
18. a) Discuss how to remove the special meaning of wild cards? Explain both scenarios.
b) Write a short note on absolute and relative path names
19. Write a note on modes on vi editor along with suitable diagram.
20. Write a neat labeled diagram of UNIX architecture and explain the components in detail.



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Belagavi.

Third Semester BCA Degree Examination Nov – 2017**C56: DISCRETE MATHEMATICAL STRUCTURES**

Duration: 3Hrs

Max Marks: 70

Instructions to candidates:

- 1) Answer all questions.

I Answer any FIVE of the following:**2 x 5 = 10**

1. Define conjunction of two propositions p and q with truth table.
2. If $A = \{1,3,5\}$, $B = \{2,3\}$ then find $A \times B$
3. Find the number of words of 2 letters formed from 3 letters.
4. State pigeon hole principle.
5. When do we say that a relation R on a set A is symmetric?
6. Define quantifiers.
7. Write down the De Morgan's law.

II Answer any SIX of the following**5 x 6 = 30**

8. Prove that $p \vee (q \vee r) = (p \vee q) \vee r$ is tautology.
9. Out of 6 boys and 4 girls, a committee of 6 is to be formed. Int how many ways can this be done if the committee contains atleast 2 girls.
10. Find the inverse of the matrix.

$$A = \begin{bmatrix} 2 & -1 & 1 \\ 1 & 0 & -1 \\ 1 & 1 & 1 \end{bmatrix}$$

11. For any two sets A and B , Prove the De Morgan's laws.
12. State any five rules of inference.
13. Prove by mathematical induction,

$$1+2+3+\dots+n = n(n+1)/2$$

14. Test whether the following argument is valid or not.

If Sachin hits century, then he gets a free car

Sachin hits a century

∴ Sachin gets a free car

15. What is logical equivalence? Show that

$$(p \rightarrow q) \Leftrightarrow (\neg p) \vee q$$

III Answer any THREE of the following

10X3 = 30

16. State the laws of logic.

17. If $A = \{1, 2, 3, 4\}$ $B = \{a, b, c\}$ let $R = \{(1, a) (1, b) (2, b) (2, c) (3, b) (4, a)\}$

$S = \{(1, b) (2, c) (3, b) (4, b)\}$ Compute i) \bar{S} ii) $R \cup S$ iii) R^c

18. Consider the following propositions

p: ABC is an isosceles triangle

q: ABC is equiangular

r: ABC is equilateral

Write the following propositions in words

(a) $P \wedge (\neg q)$ (b) $(\neg r) \rightarrow (\neg q)$

19. Find inverse of matrix $A = \begin{bmatrix} 1 & 0 & 1 \\ 1 & 1 & 1 \\ 1 & 0 & 1 \end{bmatrix}$ and prove that $A \cdot A^{-1} = I$

20. Prove by Mathematical Induction

$$1^2 + 3^2 + 5^2 + \dots + (2n-1)^2 = \frac{n(2n-1)(2n+1)}{3}$$
