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VUG (1)-BCA (F-1001)
Bus. Comm.

2024-27

Full Marks : 70

Time : 3 Hours

Candidates are required to give their answer in their own words as far as practicable. Their figures in the margin indicate full marks.

Answer from both the sections as directed.

Section - A

Answer any four Questions : $10 \times 4 = 40$

- 1.** Define business communication. Explain its significance in the modern business world.
- 2.** Discuss the process of communication. Illustrate with a diagram and explain each stage.
- 3.** What are the different types of business letters ? Write a sample letter of enquiry.

4. Explain the barriers to effective business communication and suggest ways to overcome them.
5. Describe the essentials of a good business report. Draft a sample report on declining sales in a company.
6. What is non-verbal communication? Discuss its types and importance in business settings.
7. Explain the role of technology in business communication. How has it transformed traditional communication methods?
8. Discuss the importance of listening skills in business communication. How can one improve their listening abilities?

Section - B

Answer all questions. Each carry three marks :

$$3 \times 10 = 30$$

9. Define downward communication with an example.

10. What is the difference between formal and informal communication ?

11. List any four objectives of business communication.

12. What is memo ? State its uses in business organizations.

13. Write a short note on the 7 Cs of effective communication.

14. What is grapevine communication ? Mention its advantages and disadvantages.

15. Define feedback and explain its role in the communication process.

16. What are the key components of an email message ?

17. Write any two differences between a notice and a circular.

18.What is the importance of communication in customer relationship management ?

To develop a good relationship with customer.

Communication is the key to success in CRM.

It is used to collect information about customer.

It is used to provide information to customer.

Total Pages-4

VUG (1)-BCA (F-1002)
Basic. Math.**2024-27****Full Marks : 70****Time : 3 Hours**

Candidates are required to give their answer in their own words as far as practicable. Their figures in the margin indicate full marks.

Answer from both the sections as directed.

Section - A

(Long Answer Type Questions)

Answer any four questions of the following :

$$10 \times 4 = 40$$

1. If $y = \frac{1}{x^2 + a^2}$, show that $y_n = \frac{(-1)^n \ln \sin \theta^{(n+1)} \sin(n+1)\theta}{a^{n+2}}$

~~2.~~ If $x^x \cdot y^y \cdot z^z = C$, show that at

$$x = y = z, \frac{\partial^2 z}{\partial x \partial y} = -[x \log x]^{-1}$$

~~3.~~ State and Prove Taylor's theorem for a function of two variables.

~~4.~~ Prove that :

$$\tan^{-1}(x+h) = \tan^{-1} x + (h \sin \theta) \sin \theta$$

$$-(h \sin \theta)^2 \frac{\sin 2\theta}{2} + (b \sin \theta)^3 \frac{\sin 3\theta}{3} \dots \dots \dots$$

Where $\theta = \cot^{-1} x$

~~5.~~ Solve $\frac{d^2 y}{dx^2} - y = xe^x \sin x$.

$$\frac{d^2 y}{dx^2} =$$

~~6.~~ If $\frac{x^2}{a^2+u} + \frac{y^2}{b^2+u} + \frac{z^2}{c^2+u} = 1$, Prove that :

$$\left(\frac{\partial u}{\partial x}\right)^2 + \left(\frac{\partial u}{\partial y}\right)^2 + \left(\frac{\partial u}{\partial z}\right)^2 = 2 \left(x \frac{\partial u}{\partial x} + y \frac{\partial u}{\partial y} + z \frac{\partial u}{\partial z} \right)$$

7 Change the order of integration in the double

$$\text{integral } \int_0^{2a} \int_{\sqrt{2ax-x^2}}^{\sqrt{2ax}} v dx dy$$

8 Find the length of an arc of the parabola $y^2 = 4ax$, measured from the vertex to one extremity of the latus rectum. The abscissa of the extremity L of the latus rectum is $2a$.

Section - B

(Short Answer Type Questions)

Answer all questions of the following :

$$3 \times 10 = 30$$

9. If $y = \sin(m \sin^{-1}x)$, prove that :

$$(1-x^2)y_{n+2} - (2n+1)x y_{n+1} + (m^2 - n^2)y_n = 0$$

10. Expand $\log(1-x)$ by Maclaurin's series.

11. Expand $\sin^{-1}x$.

12. Solve :

$$(D^2 + 4)y = \cos 2x$$

$$\begin{array}{r} 36 \\ 6 \\ \hline 916 \\ 2 \\ \hline 932 \end{array}$$

3
1

$$\begin{array}{r} 36 \\ 21 \\ \hline 36 \\ 72x \\ \hline 756 \end{array}$$

,

$$\begin{array}{r} 36 \\ 6 \\ \hline 916 \\ 3 \\ \hline \end{array}$$

- ~~13.~~ Evaluate $\iiint (x + y + z + 1)^{-3} dx dy dz$ over the region bounded by the Co-ordinate planes and the plane $x + y + z = 1$.

756

20

~~776~~

- ~~15.~~ Prove that :

432

216

~~648~~

$$\int_a^b \phi(x) dx = \int_a^b \phi(t) dt$$

- ~~16.~~ Define a linear partial differential equation of the first order.

~~756~~

~~216~~

~~776~~

~~Solve :~~

$$xzp + yzq = xy$$

776

648

~~28~~

- ~~18.~~ If $u = \tan^{-1} \left(\frac{x^3 + y^3}{x - y} \right)$, prove Euler's theorem.

~~tan x~~

776

748

~~28~~

$$\begin{array}{r} 36 \\ 81 \\ \hline 816 \\ 36x \\ \hline 72x \\ 72 \\ \hline 75 \\ \hline \end{array}$$

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$$\begin{array}{r} 36 \\ 816 \\ \hline 816 \\ 36 \\ \hline \end{array}$$

$$\begin{array}{r} 36 \\ 21 \\ \hline \end{array}$$

$$\begin{array}{r} 532 \\ 216 \\ \hline 748 \end{array}$$

$$\begin{array}{r} 756 \\ 20 \\ \hline \end{array}$$

$$\begin{array}{r} 216 \\ 532 \\ \hline 36 \\ 6 \\ \hline 916 \\ 3 \\ \hline \end{array}$$

$$\begin{array}{r} 38 \\ 61 \\ \hline -17 \end{array}$$

77

42

~~28~~

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VUG (1) - BCA (F-1003)
(Bcs -103) BPM

2024-27

Full Marks : 70

Time : 3 Hours

Candidates are required to give their answer in their own words as far as practicable. Their figures in the margin indicate full marks.

*Answer from **both** the sections as directed.*

Section - A

Answer any four questions : $10 \times 4 = 40$

1. Illustrate the different forms of business organization.
2. What do you mean by a Business Organization ? List and explain the logical steps in forming an Organization. Briefly discuss the contribution and limitation of Scientific Management.
3. Explain relative importance of managerial skills in the organizational hierarchy and time spent in carrying out managerial functions.

4. What are the ancient roots of management theories evolved our time ?
5. What is decision – making ? Explain the essential steps in decision – making.
6. What do you mean by term 'levels of management' ? Explain with examples the different levels of management in the business unit.
7. What do you mean by power ? How does it differ from authority ? What are the sources of power in an organization ?
8. "Management is the art of getting things done through other people". Comment on the statement and also explain the meaning and concept of management.

Section - B

Answer **all** questions, each carry **three** marks : $3 \times 10 = 30$

9. Discuss the characteristics of an effective manager.
10. Discuss the need of planning in any organization.

11. What do you understand by communication ?
12. Define sole trader ?
13. How is motivation related to productivity ? Explain.
14. Contingency Approach to Management.
15. Cross Cultural Management Issues.
16. Define delegation of Authority.
17. What is corporate governance ?
18. What do you mean by coordination ?

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VUG (1) - BCA (F-1004)
Info. To Comp. Sc.

2024-27

Full Marks : 70

Time : 3 Hours

Candidates are required to give their answer in their own words as far as practicable. Their figures in the margin indicate full marks.

Answer from both the sections as directed.

Section – A

Answer any four questions.

$10 \times 4 = 40$

- 1. What is a system ? What are the five basic operations Performed by any computer system ?**

- 2. What is the difference between Positional and non positional number System ? Give examples of both types of number systems.**

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P.T.O.



OPPO A79 5G

30 December 2025 at 10:39 am

3. Name the technologies used for constructing main memory in the computer of first, second, third and fourth generations.

4 What are the two main components of CPU of a computer system ? List out the main functions of each of these components.

5. List out the main advantages of magnetic disks as compared to magnetic tapes as a secondary storage device.

6. What is a communications software ? Give a few examples of such software.

7 What characteristics are desirable for a good, programming language.

8. What is packet switching ? Why is this method used for digital data communication between computers ?

Answer all questions :

$3 \times 10 = 30$

9. What is data processing ? Differentiate between data and information.

10. Explain the principle of quality in Boolean algebra ?

~~11. What is a ROM ? Why is it so called ? Give few typical uses of ROM.~~

~~12. What is a secondary storage ?~~

~~13. What is an operating system.~~

14. What is a note book computer ?

~~15. What is the Internet ? How did it evolve?~~

~~16. What is a www browser ?~~

~~17. What is a computer network ?~~

18.What is a mnemonic ? How is it helpful in case of computer languages ?

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4

600



OPPC A795G

30 December 2003

Total Pages-3

VUG (1) - BCA - (C-1005)

Prob. for Inc.

2024-27

Full Marks : 70

Time : 3 Hours

Candidates are required to give their answer in their own words as far as practicable. Their figures in the margin indicate full marks.

Answer from **both** the Sections as directed.

Section - A

Answer any **four** questions.

$10 \times 4 = 40$

1. Write and explain the all operator of C language? 5
2. (a) Write a program in C to find the factorial of a number? 5
(b) Write a program to check prime number? 5
3. Write a program to multiply two matrices? 5

4. Write a program to check palindrome in a string ?
5. Write a Recursive program of a G.C.D ?
6. Write any program in C to pass array in a function ?
7. Write a program in C to calculate employee salary with name, designation, D.A., H.R.A etc. using structure ?
8. Discuss :
 - (i) Pointer to function. 5
 - (ii) Array of pointer. 5

Section - B

Answer all questions : $3 \times 10 = 30$

9. What is data type in C ? int + float +
10. Write the Basic Structure of C ?
11. What is user defined function ?
12. What is call by value ?
13. What is the difference between structure and union ?

14. What is the difference between array and pointer ?
15. Write about the scope, visibility of variables ?
16. What is chain of pointers ?
17. Write about file management in C ?
18. Write the syntax of switch statement ?

```
#include <cs.h>
main()
{
    int a[10];
    printf("Enter any no.");
    for (i=0; i<10; i++)
        if (num[i] == 0)
            num[i-2] = 0;
    printf("%d", num[i]);
}
```

10 20
12 18

local
Memory
address