

BACHELOR OF COMPUTER APPLICATIONS (BCA - 2022 COURSE)
RCA, Sem-VI : SUMMER : 2025
SUBJECT: INFORMATION SECURITY: INFORMATION SECURITY
ADMINISTRATION

Day : Monday
Date : 12/05/2025

S-26317-2025

Time : (12:00 PM-05:00 PM)
Max. Marks : 100

N.B.:

- 1) Attempt **ANY FIVE** questions from Section - I. Each question carries 12 marks.
- 2) Attempt **ANY TWO** questions from Section - II. Each question carries 20 marks.
- 3) Figures to the right indicate **FULL** marks.
- 4) Draw neat and labelled diagrams **WHEREVER** necessary.
- 5) Answers to both the sections should be written in **SAME** answer book.

SECTION - I

- Q.1 How to manage and secure a desktop PC. Describe the different client side devices. (12)
- Q.2 Define LAN. Describe various devices required to establish LAN setup along with suitable diagram. (12)
- Q.3 Discuss how to share Internet connection with other devices connected in LAN. (12)
- Q.4 What is Proxy Server? Discuss in detail the Proxy Server setup. (12)
- Q.5 What is website hosting? How to setup, manage and secure a web server. (12)
- Q.6 How to share various resources over a LAN. Describe Print Server setup. (12)
- Q.7 Write short notes on **ANY THREE** of the following: (12)
- a) Segmentation
 - b) NAT
 - c) Firewall
 - d) Mobile Device

SECTION - II

- Q.8 Explain the terms Mobile Detection Management (MDM) and Mobile Threat Detection (MTD) in detail. (20)
- Q.9 Describe the advantages of resource sharing over a LAN and discuss File Server setup. (20)
- Q.10 Explain in detail the following terms: (20)
- a) FTP Server
 - b) Boot Server
 - c) DNS Server
 - d) Mail Server

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BACHELOR OF COMPUTER APPLICATIONS (CBCS - 2022 COURSE)
B.C.A. Sem-VI : SUMMER : 2025
SUBJECT: DATA ANALYSIS: DATA ANALYSIS USING R PROGRAMMING

Day : Monday
Date : 12/05/2025

S-26316-2025

Time : 02:00 PM-05:00 PM
Max. Marks : 100

N.B.

- 1) Attempt ANY FIVE questions from Section – I.
- 2) Attempt ANY TWO questions from Section – II.
- 3) Figures to the RIGHT indicate FULL marks.
- 4) Answers to both the sections should be written in SAME answer book.

SECTION – I

- Q.1 Explain the concept of hypothesis testing and its different types. (12)
- Q.2 Explain the significance of Standard Error in statistical analysis. (12)
- Q.3 Explain the different operators used in R with suitable example. (12)
- Q.4 What is the Correlation and Regression Analysis? Write a program in R to analysis the simple correlation between height and weight of individuals. (12)

Height (in cm.)	150	160	165	170	175	180	185
Weight (in Kg)	55	60	65	70	75	80	85

- Q.5 Explain ANOVA and its applicability in Statistics. (12)
- Q.6 A bag contains 7 white, 6 red and 5 black balls. Two balls are drawn at random. Find the probability that they will both the white. (12)
- Q.7 Write short notes on ANY THREE of the following: (12)
- a) List in R
 - b) Random Variable
 - c) Data Types in R
 - d) Stratified Sampling Technique

SECTION – II

- Q.8 A Random variable 'X' has the following probability distribution (20)

x	1	2	3	4	5	6	7	8
f	k	2k	3k	4k	5k	6k	7k	8k

Find the value of

- a) k
 - b) $P(x \leq 2)$
 - c) $P(2 \leq x \leq 5)$
- Q.9 If X is Poisson variate such that, $P(1) = P(2)$. Find the value of (20)
- a) Mean of the distribution
 - b) $P(X = 4)$
 - c) $P(X \geq 1)$
- Q.10 a) Write a program in R to check whether entered number is divisible by 9 or not. (10)
- b) Explain the different Statistical Models used in R. (10)

BACHELOR OF COMPUTER APPLICATIONS (CBCS - 2022 COURSE)

B.C.A. Sem-VI : SUMMER : 2025

SUBJECT: SOFTWARE PROJECT MANAGEMENT

Day : Friday

Date : 09/05/2025

S-26315-2025

Time : 02:00 PM-05:00 PM

Max. Marks : 100

N. B. :

- 1) Attempt **ANY FOUR** questions from section-I and attempt **ANY TWO** questions from section-II.
- 2) Answer to both the sections should be written in **SAME** answer book.

SECTION – I

- Q. 1** Discuss different methods for selection of project with their merits and demerits. [15]
- Q. 2** Explain the COCOMO model in detail. [15]
- Q. 3** What is PMBOK? Describe various editions of PMBOK published till date. [15]
- Q. 4** Define project and software project management. Discuss the project management framework. [15]
- Q. 5** What is risk? Why risk management? List and discuss various types of risk associated with software projects. [15]
- Q. 6** Write short notes on **ANY THREE** of the following: [15]
- a) Quality standards
 - b) Cost control
 - c) Price to win
 - d) Scope management

SECTION – II

- Q. 7** Draw the activity network diagram and find EST, EFT, LST and LFT. Also find the critical path. [20]

Activity	Predecessor	Duration (Weeks)
A	--	7
B	--	9
C	A	7
D	B	9
E	B	5
F	D,E	7
G	C,F	14
H	D	10
I	G,H	5

P.T.O.

Q. 8 Project XYZ is to be 70,000 DSI semi-detached software. It is in a mission critical area, so the reliability is high ($RELY=high=1.15$). Using intermediate COCOMO model, calculate efforts, schedule, productivity and average staffing. [20]

Q. 9 As a project manager of IT project, identify the stakeholders required to complete the project. Explain the minimum skill set required to each stakeholder. Also identify the risk associated with project. [20]

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BACHELOR OF COMPUTER APPLICATIONS (CBCS - 2022 COURSE)
B.C.A. Sem-VI : SUMMER : 2025
SUBJECT: WEB PROGRAMMING (PHP)

Day : Wednesday
Date : 07/05/2025

S-26314-2025

Time : 02:00 PM-05:00 PM
Max. Marks : 100

N.B.

1. Attempt **ANY FIVE** questions from Section – I and **ANY TWO** questions from Section II
2. Figures to the **RIGHT** indicate **FULL** marks.
3. Answers to both the sections should be written in **SAME** answer book.

SECTION – I

- Q.1** What do you mean by operator? Describe arithmetic and logical operators with example. (12)
- Q.2** Describe the steps of installation and configuration of Xampp server on a local computer. (12)
- Q.3** Explain Date and String function in PHP with example. (12)
- Q.4** What is cookies in PHP? How cookies are set and delete in PHP. (12)
- Q.5** What is MYSQL? Explain the steps in detail to create table in database and insert records with example. (12)
- Q.6** What do you mean by session in PHP? Explain the procedure to start and destroy a session in PHP.
- Q.7** Write Short Notes on **ANY TWO** of the following : (12)
- a) Reading Files in PHP
 - b) Post Function
 - c) DML Commands in MYSQL
 - d) User Define Function

SECTION – II

- Q.8** Design a registration page and valid phone number and email address in PHP. (20)
- Q.9** Write a program in PHP to print Fibonacci Series: 0 1 1 2 3 5 8 13 21 (20)
- Q.10** Write a PHP code to derclare two array and store into third array after merging. (20)

BACHELOR OF COMPUTER APPLICATIONS (CBCS - 2022 COURSE)
B.C.A. Sem-VI : SUMMER : 2025
SUBJECT: DATA WAREHOUSING & DATA MINING

Day : Monday
Date : 05/05/2025

S-26313-2025

Time : 02:00 PM-05:00 PM
Max. Marks : 100

N.B.

- 1) Attempt any **FIVE** questions from Section – I and any **TWO** questions from Section – II.
- 2) Figures to the right indicate **FULL** marks.
- 3) Answers to both the sections should be written in the **SAME** answer book.

SECTION – I

- Q.1** Explain the fundamental concept of Data Warehousing. How does it differ significantly from an operational database system in terms of purpose, data characteristics and usage? (12)
- Q.2** Describe and illustrate the various OLAP operations with examples. (12)
- Q.3** Explain the various types of data that can be mined. (12)
- Q.4** How can data mining provide business intelligence and create a competitive advantage for organization? (12)
- Q.5** Explain the difference between supervised and unsupervised learning with example. (12)
- Q.6** What is frequent item set? How is it identified using the Apriori principle? (12)
- Q.7** Write short notes on any **TWO**: (12)
- a) Data mart
 - b) Data transformation
 - c) Outlier analysis

SECTION – II

- Q.8** Provide an example of a scenario where association rule mining would be a useful technique? What kind of insights could it provide. (20)
- Q.9** What is classification? Explain classification with Decision Tree induction. (20)
- Q.10** What is clustering? Describe the steps involved in performing a clustering analysis. Explain any one application of it in detail. (20)