



Tribhuvan University
Faculty of Humanities & Social Sciences
OFFICE OF THE DEAN
2018

Bachelor in Computer Applications
Course Title: Computer Fundamentals and Application
Code No: CACS 101
Semester: Ist

Full Marks: 60
Pass Marks: 24
Time: 3 hours

Candidates are required to answer the questions in their own words as far as possible.

Group B

Attempt any SIX questions.

[6×5 = 30]

11. Define Computer. Explain the anatomy of digital computer with block diagram.
12. Define Operating System. Explain the functions of Operating System.
13. Define DBMS. Explain the different database models with their merits and demerits.
14. Explain the different types of LAN topologies with their advantages and disadvantages.
15. What is WWW? Differentiate between intranet, extranet and internet with exaple.
16. What are contemporary technologies? Explain any two contemporary technologies with roles.
17. Write the DOS commands to complete following tasks.
 - a) Create sub directory theory and practical inside d:\exam\
 - b) Create the file name *marks.txt* inside theory writing the content, "Theory marks in CFA".
 - c) Rename the file name *marks.txt* with *CFAMarks.txt*.
 - d) Make hidden the file *CFAMarks.txt*.
 - e) Search the all files with .pdf extension.

Group C

Attempt any TWO questions.

[2×10 = 20]

18. i) You are provided following data:

Bageswori Secondary School

Surkhet

Mark - Ledger

	D	E	F	G	H	I	J	K	L	M
11	Name	Eng.	Nep.	Eco.	Sociology	Computer	Total	Percentage	Result	Division
12	Gautam	56	56	76	75	68				
13	Saru	67	54	64	64	76				
14	Binod	87	65	54	59	66				
15	Ritu	45	67	56	72	85				
16	Kabindra	89	34	63	59	52				

Write the formula in spread sheet package to calculate following on basis on given conditions:

1. Calculate Total marks. [1]
 2. Calculate Percentage. [1]
 3. Mark the student with either "PASS" or "FAIL" [Pass Marks 35]. [1.5]
 4. Calculate the division [if percentage ≥ 60 then First, if percentage ≥ 45 and percentage < 60 then Second, if percentage ≥ 35 and percentage < 45 then Third otherwise "xxx"] [1.5]
- ii) Explain the features of Font control tools in word processing package. [5]
19. i) Define computer peripherals. Differentiate between impact and non-impact printers. [1 + 4]
- ii) Define Presentation. Write the features of good presentation package. [5]
20. Define CMYK color model. Explain the basic tools and transforms available in Photoshop. [2 + 5 + 3]



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Pass Marks: 24

Time: 3 hours

Centre:

Symbol No:

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Group A

Attempt all the questions.

[10×1 = 10]

1. Circle (O) the correct answer.

- i) Which one of the following is not a non-impact printer?
 - a) Inkjet
 - b) Dot-matrix
 - c) Laser
 - d) Thermal
- ii) Which one of the following is the example of the utility software?
 - a) Anti-virus
 - b) Operating system
 - c) Language translators
 - d) Word Processor
- iii) Which one of the following is not a Network Operating System?
 - a) Unix
 - b) Linux
 - c) Windows 7
 - d) Windows Server
- iv) Which one of the following key is used to uniquely identify a row in table?
 - a) Composite key
 - b) Foreign Key
 - c) Candidate Key
 - d) Primary Key
- v) Which one of the following layer of OSI reference model contains TCP protocol?
 - a) Network Layer
 - b) Transport Layer
 - c) Data Link Layer
 - d) Application Layer

- i) vi) Which one of the following is not a web server?
- | | |
|-----------|---------|
| a) Apache | b) IIS |
| c) GWS | d) HTTP |
- iv) Which one of the following is a crypto-currency?
- | | |
|----------------|---------------|
| a) Credit Card | b) PayPal |
| c) Bit Coin | d) Mater Card |
- v) Which one of the following command is used to shut down the computer normally?
- | | |
|----------------|----------------|
| a) shutdown /f | b) shutdown /s |
| c) shutdown /h | d) shutdown /r |
- ix) What is the default font type in MS Word 2016?
- | | |
|------------|-------------------------|
| a) Arial | b) Times New Roman |
| c) Calibri | d) Microsoft Sans Serif |
-) x) Which one of the following key is used for help in MS – PowerPoint?
- | | |
|-------|--------|
| a) F1 | b) F5 |
| c) F6 | d) F11 |



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Group B

Attempt any SIX questions.

[6×5 = 30]

2. What is Operating system? Explain the major functions of Operating System. [1+4]
3. Differentiate between primary and secondary memory. [5]
4. What is computer virus? Explain symptoms of computer virus. [1+4]
5. Define database? Explain the advantages of database over file based system. [1+4]
6. What is proxy server? Write down the benefit of using proxy server in the organization. [5]
7. Define e-commerce? Mention the benefits of using it in the context of customer? [1+4]
8. Consider the following structure and answer the questions. (E:/> is current prompt)

```
E:\ROOT
├── dir_1
│   ├── file_1.txt
│   └── file_2.txt
├── dir_3
└── dir_2
    └── file_2.txt
```

- a) Write down DOS command to create above files and directories. [2]
- b) Write down DOS command to move all text file into **dir_3** directory. [1]
- c) Write DOS command to delete **dir_1** directory. [1]
- d) Hide the **root** directory from E drive. [1]

Group C

Attempt any TWO questions.

[2×10 = 20]

9. (a) From the following spreadsheet, write the formula to address the following conditions:

ABC Company

Kathmandu

	A	B	C	D	E	F	G	H	I
1	SN	Name	Addr	Post	Salary	Bonus	Tax	HA	Total
2	1	Ram	Ktm	Manager	12000				
3	2	Sham	Pokhara	Accountant	11500				
4	3	Hari	Pokhara	Engineer	10000				
	Maximum Salary				?				

Conditions:

1. Bonus will give 15% of salary If his/ her salary is less than and equal to 6000. [1]
 2. Tax will pay 10% of salary if his/ her post is manager [1]
 3. HA will get 5% of salary, if he/she is not from Ktm. [1]
 4. Total is equal to the sum of (Salary, Bonus and Ha) by deducting the Tax [1]
 5. Write a formula to find the maximum salary above the excel sheet. [1]
- b) What is Photoshop? Explain five major tools of Photoshop. [1+4]
10. a) What is word processor? Explain the major functions available in the Home tab of word document. [5]
- b) Define Network Topology? Write down the advantages of Network. [1+4]
11. a) What is animation? What are the advantages of using slide master in PowerPoint? [1+4]
- b) Explain block diagram of computer and its various components. [5]



Tribhuvan University
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2020

Bachelor in Computer Applications
Course Title: Computer Fundamentals & Applications
Code No: CACS 101
Semester: I

Full Marks: 60
Pass Marks: 24
Time: 3 hours

Candidates are required to answer the questions in their own words as far as possible.

Group B

Attempt any SIX questions.

[6×5 = 30]

2. Who is database administrator? Explain the major roles and responsibilities of DBA. [1+4]
3. Define operating system? Explain the open-source operating system. [1+4]
4. What is ergonomic keyboard? Explain working mechanism of keyboard. [1+5]
5. Explain different types of computer on the basis of size and power. [5]
6. What is DBMS? Explain Relational database model with suitable diagram. [1+4]
7. Prepare a specification of personal computer which you want to purchase. [5]
8. Explain any five DOS command with suitable example.

Group C

Attempt any TWO questions.

[2×10 = 20]

9. Prepare following spreadsheet:

ABC Campus
Kathmandu

	A	B	C	D	E	F	G	H	I	J	H	G	H
1	SN	Name	CFA	Logic	Math	So_Tech	English	Total	Per	Result	Grade	Rank	Remarks
2	1	Ram	45	56	54	44	45	?	?	?	?	?	?
3	2	Sham	50	45	53	45	45	?	?	?	?	?	?
4	3	Hari	46	44	45	46	45	?	?	?	?	?	?

Conditions:

- a) Write appropriate formula to find the total marks of each students. [1]
- b) Write formula to find out the percentage of each student [1]
- c) Result is passed if student score at least 40% marks in each subject. [2]
- d) Write a formula to calculate grade of student based on percentage.
(A for >=90, B for >=80, C for >=70, D for >= 60, E for >=40) [3]
- e) Write a formula to find rank of individual student who has passed result. [1]
Write a remarks base on following conditions: [2]
("Excellent" for A grade, "Good" for B, "Fair" for C, "Moderate" for D and "Satisfactory" for E)
10. a) What is mail merge? Explain the major functions available in the Review tab of word document. [1+4]
- b) What is Photoshop? Write the steps to create MRP sized photograph in JPEG format. [1+4]
11. Define Computer Network? Explain OSI model in detail. [2+8]



Tribhuvan University
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2021

Bachelor in Computer Applications
Course Title: Computer Fundamentals & Applications
Code No: CACS 101
Semester: I

Full Marks: 60
Pass Marks: 24
Time: 3 hours

Candidates are required to answer the questions in their own words as far as possible.

Group B

Attempt any SIX questions.

[6×5 = 30]

2. What is computer interface? Describe a mainframe computer's essential feature. **[1+4]**
3. What kinds of programs fall under the utility category? Describe a utility program you have on your computer. **[1+4]**
4. What role does the operating system play in managing resources? Give an example to illustrate. **[3+2]**
5. Who supervises the databases in the organization? What tasks and obligations are under the scope of the database administrator. **[1+4]**
6. Using a suitable example, describe how a network might lower office overhead. **[5]**
7. Write down characteristics and applications of laser printer. **[5]**
8. How would you describe web architecture? Give an illustration of how data flows in a web architecture.

Group C

Attempt any TWO questions.

[2×10 = 20]

9. a) What is a softcopy device? Explain the working mechanism and applications of the OMR. **[1+4]**
b) Write DOS Commands to perform following task: **[5]**
 - i) To create the TU directory at the current prompt.
 - ii) To display the tree view structure of the files and folders included within the TU directory.
 - iii) To remove the BCA and MCA (non-empty folders) from the current prompt.
 - iv) To locate the IP address of your computer in the network.
 - v) To discover the presence of a remote device on the network.
10. a) What is ambient reality? How it differs from augmented reality? **[2+3]**
b) Why is the Healing Brush Tool useful? Describe how to use Photoshop to create your ID-Card.
11. a) "An essential software component of a computer system is the operating system". What fundamental capabilities are offered to a user by an operating system? **[5]**
b) What does the phrase "interactive multimedia" mean? Describe the components of multimedia. **[2+3]**