

HIMALAYA DARSHAN COLLEGE

2079

Full Marks: 100

Pass Marks: 50

Time: 3 Hours

BIM / First Semester / ENG201: ENGLISH

Pre-Board EXAMINATION

Group "A"

10/2/20

Brief Answer Questions

- Discuss the central idea of the poem "The lunatic"
- Define the terms simile and metaphor.
- Make a character sketch of the central character of "The Company Man"
- Discuss the theme of Imperialism in "shooting an elephant"
- Rewrite the sentences in direct speech
 - The teacher said one of the students has done an excellent job.
 - The principal forbade the pupils to jump over the wall.
- Write the past participle of the given verbs
 - Bite
 - put
- Choose the correct word to complete sentences a-f
 - Our marketing strategy is decided/based on a tried and tested system.
 - Many senior citizens have contacted us to enquire/discuss about the new tax.
- Correct the modal verbs in these sentences
 - Surely you mustn't be retiring this year? You look so young!
 - You ~~mustn't~~ make up your mind about the job offer yet if you don't want to.
- What is the tone of the poem "The parrot in the cage"?
- Make sentences using these expressions: i. Loose End ii. Make Ends Meet

Group "B"

Attempt any six Questions

(6x5=30)

- What gender roles should a boy and girl perform in Nepal? Discuss.
- "The Hundredth Dove" depicts the conflict between the mind and the heart. Elaborate
- According to you, has the god created in jest or in the earnest? Give appropriate examples to justify your opinion.
- Complete the sentences using correct form of verb:
 - My neighbor couldn't stop because his bus _____ (leave) and he didn't want to miss it.
 - For the past six weeks, I _____ (have) singing lessons.
 - I can't _____ phone you at that time because I _____ (travel) on the underground.
 - The photocopy machine _____ (break down) twice already and it's not even lunchtime.
 - As a rule, we _____ (spend) part of each summer at my parents' house.
- Complete a-e with phrasal verbs formed from these verbs plus up or down
Break set put bring turn
 - If you haven't got enough room, we can _____ your relatives for the night.

n. His intention is to use the inheritance to ^{start up} his own business.
m. Protesters are threatening to _____ the government if their demands _____ aren't met.

iv. Police _____ the demonstration by firing tear gas into the crowd.

v. It was the thought of commuting everyday that made me _____ the job offer.

6. 'Here I love you' is a gloomy expression by a true lover. Elaborate.

7. Complete sentences a-h with one of the prepositions below and an appropriate gerund _____

on at for to of in

a. I'm not very keen _____ when the sea is this rough but I'll come if you insist.

b. Are you looking forward _____ School and getting a job?

c. In trying to take a shortcut across the fields, we only succeeded _____ completely lost.

d. I apologize profusely _____ you waiting in the cold for so long.

e. My classmates insisted _____ me a birthday present even though I said I didn't want one.

Group "C"

Attempt any three questions

(3 x 10 = 30)

1. One of your friends has applied for the position of ECA Coordinator at a reputed school in Biratnagar. Prepare a reference letter for him.
2. Write an essay on "The Impact of Science and Technology in the 21st century in Education".
3. You are on a planning committee representing Nepal for an international cultural festival in London. Prepare a proposal to participate in an international cultural festival.
4. Make a critical analysis of the poem "All Pervading Poetry".

Group "D"

Read the given passage and do the exercise that follows (20 x 1 = 20)

The fact that millions of people spend billions of hours playing games on their mobile devices is not lost on companies looking for ways to enhance communication with employees and customers. Whether they feature skill, chance, or a compelling story line, successful games try to engage users intellectually and emotionally-just as successful business companies try to do.

Gamification is the addition of game-playing aspects to an activity or a process with the goal of increasing user engagement, and it's a natural fit for social media and mobile devices. Four square's check-in competitions, in which the person who "checks in" using Foursquare most times during a certain time window is crowned the "mayor" of that location, were an early use of gamification. Foursquare wasn't invented as a way for people to become imaginary mayors of places where they shop or eat, of course. It is an advertising platform that relies on user activity and user-generated content, and the game element encourages people to use the app more frequently.

business communication platforms. On a customer-service system, the software rewards employees for increasing their productivity, meeting their service commitments to customers, and sharing knowledge with their colleagues. On several collaborations and brainstorming systems, gamification encourages people to make more connections, share ideas, and boost their influence within a community. Employee orientation systems can use game concepts to help new hires learn their way around the organization.

Gamification is also a key strategy for many companies trying to improve customer loyalty. Badgeville's Reputation Mechanics System, for example, boosts the profile of knowledgeable customers who share expertise on social media sites and other online forums. By rewarding their product champions this way, companies encourage them to keep contributing their expertise, thereby helping other customers be successful and satisfied.

Incidentally, if you are in the Millennial generation- those born between about 1981 and 1995- you're a special target of gamification in the workplace and the marketplace, given your generation's enthusiasm for video games. Don't be surprised to find more gamified apps and systems on the job and everywhere you turn as a customer.

Questions

- Gamification is about influencing employee and customer behaviors in a way that benefits a company. Is this ethical? Explain your answer.
- Assume a company provides a job-search game app that helps you to navigate your way through applying for a job, explore various job openings, and understand what it would be like to work there. Would the app make you feel more positively about the company, or would you find that using a game for this purpose would trivialize something as important as your job search? Explain your answer.

game we people spend billions of hours
games on their mobile. helps to connect
with employees. find the job because co-
uses gamification, sharing knowledge
boost their influence.

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BIM / First Semester / IT 232: C Programming

Pre-Board EXAMINATION

Group A

[10×1=10]

1. Brief Answer Question:

- What is a double pointer? Give example.
- When you pass an array *myArray* to a function, what is actually being passed?
- Is a ternary operator (`? :`) is an option of using `if...else` statement? Illustrate.
- Why `p++` executes faster than `p=p+1`?
- What happens when you assign a fractional number to an integer variable?
- Can a function return more than one value?
- What does a pre-processor directive `#define` do?
- Write the use of Link section in a C Program?
- What is the *problem* wrong, with following piece of code?

```
int main()
{
    int a = 10;
    int a = 12;
    printf("Value of a, %d", a);
    return 0;
}
```
- What will be the output of following code? Illustrate.

```
int arr[] = {1, 3, 5, 7, 9, 11};
int *p = arr + 2;
printf("Current value = %d\nNext Value = %d", *p, *(p+2)).
```

Group "B"

Short Answer Questions (Attempt any Five): [5×3=15]

3. Write a program to check if an input character is uppercase alphabet, lowercase alphabet, whitespace or digit.
4. Write a program to print "Hello C" 10 times using a function.
5. Write a program to reverse a user input number.
6. Write a program to print the product of all the elements of an array using pointer.
7. Write a program to check if a number is negative, positive or zero using switch case.
8. What will be the output of following program? Illustrate with iterations.

```
#include <stdio.h>
```

```
int main()
```

```
{
```

```
    int i = 0;
```

```
    do {
```

```
        if(i++==2)
```

```
            printf("Value of i = %d\n", i);
```

```
    } while(i<3);
```

```
    printf("All Done !!");
```

```
    return 0;
```

Handwritten notes at the bottom left corner:

```

i = 0
i = 1
i = 2
i = 3

```


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BIM / First Semester / MGT 231: Foundation Of Business Management

Pre-Board EXAMINATION

Group A

Very short question (2 x 10 = 20) marks

- 1) What is delegation of authority and decentralization?
- 2) Define work work diversity with suitable example.
- 3) Define effective communication .
- 4) Define single use and standing use planning.
- 5) what is business environment ? Provide any 2 examples of internal and external environment.
- 6) state any 4 elements of organizational architecture.
- 7) state different types of conflicts
- 8) why is controlling required?
- 9) Define organizational culture
- 10) what do you mean by centralization and decentralization.

Short question (5 x 6 = 30)

- 1) What is planning? Explain the steps in planning process.
- 2) Explain systema theory of management with its pros and cons.
- 3) Explain various roots of unethical behavior in an organization.
- 4) Describe the process of rational decision making.

5) What are main service sector industries in Nepal? Explain their economic contribution

6) Explain the major skills required for a manager for running an organization

7) Describe "the bureaucratic theory of management"

Long question (3 x 10 = 30)

1) Explain in detail all the areas of social responsibility of a business organization

2) Describe the basis of classification of plan in an organization

3) Explain why cultural integration is essential in business organization, what are the consequences of ignoring cultural integration during mergers?

4) Explain the barriers of effective communication and suggest such measures to overcome such barriers.

Case study 20 marks

Pashmina export revenues falling despite government incentives

Pashmina export revenues are going downhill, even though the government has given the sector high priority because it is one of the country's major export earners, said government officials at a programme.

Products made of the fine wool have been identified as one of the major export items in the Nepal Trade Integration Strategy 2016, a government programme to boost exports. The government has been providing cash incentives of 3-5 percent to exporters of products listed as having high export potential. The government also provides cash support to register fine Pashmina Pashmina collective trademark in foreign countries. The brand has been registered in 47 countries so far, as per the Nepal Pashmina Industries Association. Despite government support, pashmina shipments have been declining every year. According to Nepal Pashmina

Bank records, export revenues stood at Rs2.45 billion in fiscal 2016-17, which came down to Rs2.28 billion in fiscal 2017-18. Shippers in the first eight months of fiscal 2018-19 ending mid-July were valued at Rs1.52 billion, down 1.14 percent year-on-year. Sharad Bikram Rana, executive director of the Trade and Export Promotion Centre, said there was a need to rigorously review the business process of Nepali pashmina to analyse the benefits the country has been receiving from the investment made in the sector. "With failing to enhance the backward linkage of the product, the investment has failed to yield good return from the sector," said Rana.

According to the association, almost all the pashmina yarn needed to manufacture the product is imported mainly from China. Manang, Mustang and Dolpa districts are the largest producers of pashmina among the 14 districts in the country where this product is made. These three districts can produce at least 4 tonnes of pashmina annually.

Rana highlighted the need to transfer export earnings to the grass roots level. "Apart from promoting the product by branding, traders should focus on improving the design and quality to boost exports," he said. Durga Bikram Thapa, president of the Nepal Pashmina Industries Association, said counterfeit products were currently a major worry for the industry.

"A number of unscrupulous traders have been selling shawls made of viscose and polyester under the brand," said Thapa. He gave the example of Nepal's woollen carpet industry which went from boom to bust in the last decade due to the failure to maintain quality. Thapa said fake goods were being sold mainly in key tourist centres like Thamel, Kathmandu. According to him, a government team led by the Trade and Export Promotion Centre inspected the area six months ago and

covered widespread sales of fake pashmina shawls under the Chyangra pashmina brand. "There is a need to develop strict measures to check such malpractices to protect the sector," he added. The Chyangra industry also receives aid from international organisations such as the World Bank and the International Trade Centre, a multilateral joint agency under the World Trade Organisation and the United Nations. The World Bank is investing \$115 million in livestock production including chyangra farming under its Nepal Livestock Sector Innovation Project for 2017-23. The International Trade Centre provided \$18 million to improve the quality of production and design and promote the collective trademark Chyangra in the international arena through its Pashmina Enhancement and Trade Support project. The project lasted from 2014 till 2017. It was supposed to extend the second phase of the project, but is reluctant to do so due to the slow progress of the Nepali pashmina sector, said stakeholders.

Questions

2. Critically analyze the possible cause of decreasing pashmina export in respect of grants by the government

3. How the pashmina industry in Nepal being affected due to branding infringement? Discuss

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BIM/ FIRST Semester / IT212: Fundamental Of Information Technology

Pre-Board EXAMINATION

Group A

Brief answer questions

Attempt all questions.

(10*1=10)

1. Define Search Engine.
2. Why Router is known as inter connection networking device.
3. Define Utility Software.
4. Define Encryption and Decryption process.
5. Define Spyware.
6. What is Boot-sector virus.
7. Define Big data.
8. Draw OSI model.
9. Define TCP/IP.
10. Define ETL.

Group B

Short Answers Questions.

Attempt any five questions.

(5*3=15)

11. Explain ANN.
12. Explain history of computer.
13. Explain HTTP with diagram.
14. Difference between Static RAM and Dynamic RAM.
15. Explain the characteristics of Data Warehouse in detail.
16. Explain Static and Dynamic Web Page.

Group C

Long Answer Questions.

Attempt any three questions. (3*5=15)

- ✓ 17. Explain different types of database models.
18. Explain OSI model with figure.
19. Explain Router, Switch and Bridge in detail. (compulsory question)
- ✓ 20. Explain Computer virus with types.

Group D

Comprehensive Questions

Attempt all questions. (2*10=20)

- ✓ 21. Explain Guided and Unguided media in detail with respective diagram.
- ✓ 22. Explain different types of Internet Protocols with respective diagram.

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BIM / FIRST Semester / MTH201: Basic Mathematics

Pre-Board EXAMINATION

Group A $[10 \times 2 = 20]$

Attempt all questions. (Brief Answer questions)

1. In a survey report of 600 families, 450 families use filter water and 480 families use boiled water. how many families use both type of water?
2. Use absolute value sing for the inequality: $-\frac{2}{3} \leq x \leq \frac{1}{2}$.
3. What is the polar form of a complex number? Define with an example.
4. If $\lim_{x \rightarrow a} \frac{x^4 - a^4}{x - a} = 32$, find the value of a.
5. Find the average rate of change in the profit $P(x) = 3x^2 + 5$ (in rupees) for a change in the outputs from $x_1 = 5$ units to $x_2 = 7$ units.
6. Find $5A^T$, for the matrix $A = \begin{bmatrix} 3 & 2 & 6 \\ 4 & 5 & 7 \end{bmatrix}$.
7. Integrate: $\int \frac{t-2}{t-2} dt$.

8. Determine the order and degree of the differential equation: $y =$

$$\sqrt{\left(\frac{dy}{dx}\right) + \left(\frac{d^2y}{dx^2}\right)^3}$$

9. If $\vec{a} = (1, 3)$ and $\vec{b} = (-2, 3)$, find $2\vec{a} - 3\vec{b}$, and a unit vector along $2\vec{a} - 3\vec{b}$.

10. Without expanding show that: $\begin{vmatrix} 42 & 1 & 6 \\ 28 & 7 & 4 \\ 14 & 3 & 2 \end{vmatrix} = 0$

Group - B [6×5=30]

Attempt any six questions. (Short answer type questions)

11. (a) Find the cube roots of unity by using De-Moivre's theorem.

(b) If $\sqrt{a - ib} = x - iy$, then prove that: $\sqrt{a + ib} = x + iy$.

12. A function $f(x)$ is defined as :

$$f(x) = \begin{cases} 2x^2, & \text{for } x < 2 \\ 5, & \text{for } x = 2 \\ 4x, & \text{for } x > 2 \end{cases}$$

is the function continuous at $x = 2$? If not, how can you make it continuous.

13. If $f(x) = \frac{ax-2}{x+b}$, $\lim_{x \rightarrow 0} f(x) = 1$ and $\lim_{x \rightarrow \infty} f(x) = 3$, then show that $f(6) = 4$.

14. Find $\frac{dy}{dx}$ of the following functions.

(a) $y = x^x$

(b) $x = e^{t^2}, y = e^{2t}$

15. Evaluate the following integrals:

(a) $\int \frac{x^3+2x^2+x+2}{(x+1)^2} dx$

(b) $\int (\log x)^2 \cdot dx$

16. Solve the following differential equation: $\frac{dy}{dx} + ay = e^{mx}, y(0) = 0$

17. Prove that the vectors: $-\vec{a} + 4\vec{b} + 3\vec{c}, 2\vec{a} - 3\vec{b} - 5\vec{c}$ and $2\vec{a} + 4\vec{b} - 3\vec{c}$ are coplanar, where \vec{a}, \vec{b} and \vec{c} are three vectors.

Group - C [3×10 = 30]

18. In a class of 60 students 29 participated in basketball, 16 in hockey, 35 in baseball, 10 in both basketball and hockey, 12 in both hockey and baseball, 11 in both basketball and baseball, 7 took part in all three games, then find:

- The number of students, who did not take part in all three games.
- The number of students who took part in exactly two games.
- The number of students involving in at least one games.

19. Fit a straight-line Trend by the method of least squares from the following data. Also calculate the Trend values. Graph them.

Years	2005	2006	2007	2008	2009
Sales (000 Rs)	20	22	25	29	34

Estimate the sales for the year 2010.

20. Solve the following system of equations, by using Inverse matrix method.

$$2x - y + 3z = 9, x - y + z = 2, x + y + z = 6$$

21. The demand all supply function under perfect competition are: $P_d = 120 - 4Q$ and $P_s = 5Q - 60$, respectively, where P and Q denote price

and Quantity. Find the consumer's surplus, producer's surplus and total surplus.

Group - [1×20 = 20]

Comprehensive Answer questions.

[6+6+6+2]

22. Let the total cost function of a firm be given as : $C(x) = 300x - 10x^2 + \frac{1}{3}x^3$, where x is an output, Finds:

- (a) The minimum value of the marginal cost function.
- (b) The minimum value of average cost function.
- (c) The output at which marginal cost is equal to the average cost.
- (d) Show that the marginal cost and average cost are equal at the minimum average cost.

Best of Luck!