BHARTIYA SKILL DEVELOPMENT UNIVERSITY

Answer key

School of Carpenter Skills

Session: 2019-20 (Summer Semester)

B. Voc. Program, I Semester,

1st In-Sem. Examination

Course Code: GEN1104 **Time: 1 Hour**

Course Name: Elementary Mathematics **Max. Marks: 20**

Instructions:

1. Answer all questions from section A, each question carries one mark.
2. Answer all questions from section B, each question carries two marks.
3. Answer all question from section C, each question carries three marks.

Section – A

Q 1. Which one of the following is the volume of cylinder, were "r" is radius and "h" is height of the cylinder?

(A) $V = 2\pi r^2 h$ (B)$V = \pi R^2 h$ (C)$V = \pi r^2 h2$ (D) $V = \pi r^2 h$ D

Q 2. How many inches are there in 1.5 meter?

(A)60.80 inch (B)58.9 inch (C) 59.05 inch (D)61 inch B

Q 3. Which one of the following is the Conversion Scientific notation conversion of 0.00001?

(A)10^5 (B)10^{-5} (C)10^6 (D)10^{-6} B

Q 4. Which one of the following is 7% of 50?

(A) 3.5 (B) 7.5 (C) 3 (D) 7 A

Q 5. Which one of the following is the value of $20/20^5$?

(A) 0.01 (B) 0.001 (C) 0.0001 (D)None of these D

Section – B

Q.6 Calculate the volume of cylinder in $(mm)^3$ having diameter 10 cm and height 35 cm.

$V = \pi r^2 h$

$= \frac{22}{7} \times (50)^2 \times 350$

$= 2750000\ mm^3$

Dia – 10 cm

$r = \frac{10}{2} = 5\ cm = 50\ mm$

$h = 35\ cm = 350\ mm$

Q.7. Calculate the volume of cube in $(mm)^3$ having length of side 0.0025 m.

Volume of Cube $= (side)^3$

$= (0.0025)^3\ m$

$= (2.5)^3\ mm$

$15.625\ mm^3$

[$0.0025m = 2.5\ mm$

Q.8. Find out the value of $[(100)^2 + (10)^2 + (1)^2]$ cm in mm.

$= (100 \times 100) + 100 + 1$

$= 10,000 + 100 + 1$

$= 10101$ cm

$=$ ~~total value~~ 101010 mm

Section – C

Q 9. Find out the value of $[(100)^2 + 4(10)^2 + (100)^2]$ cm / $[3(10)^2 + 2(10)^2 + (10)^1]$ cm in meter.

$= \frac{[10,000 + 400 + 10000]}{[300 + 200 + 10]}$

$= \frac{20,400}{510}$

$= 59.60$ cm $= 0.596$ meter

Q 10. Ram purchased a table in 4600 Rs and sold it with 20% profit. find out the selling price, if Ram wants to earn double of its profit by keeping selling price same what should be the purchasing price.

(i) P.P = 4600 Profit = 20%.

S.P = P.P + Profit

$4600 + 4600 \times \frac{20}{100}$

$= 4600 + 920 = 5520$ Rs.

(ii) P.P + Profit = S.P

P.P + 1840 = 5520

P.P = 3680 Rs

Q 11. Carpenter buy an Almira in 5000 Rs and sold it with 15% loss. find out the selling price, if Carpenter wants to earn 10% profit by keeping selling price same, what should be the purchasing price for Almira.

(i) P.P. = 5000 Rs.

Loss = 15%

P.P − Loss = S.P

$5000 - 5000 \times \frac{15}{100} = S.P$

$5000 - 750 = S.P$

S.P = 4250 Rs

(ii) $x + x\frac{10}{100} = 4250$

$110x = 4250 \times 100$ **$x = 3863.63$ Rs.**

ANSWER KEY

ELEMENTARY MATHEMATICS

Course Code:- GEN1104

Section - A

1.) d. [1]

2.) b. [1000]

3.) c. [6025 cm]

4.) a. $[(10)_2]$

5.) c. [0.003 km]

Section-B

6.) a) $(156)_{10}$

	Q	R
156/2	78	0
78/2	39	0
39/2	19	1
19/2	9	1
9/2	4	1
4/2	2	0
2/2	1	0
1/2	0	1

$= (10011100)_2$

b) $(64)_{10}$

	Q	R
64/2	32	0
32/2	16	0
16/2	8	0
8/2	4	0
4/2	2	0
2/2	1	0
1/2	0	1

$= (1000000)_2$

7.) Length of rope purchased by Shelly = 40m 200cm
Length of rope purchased by Jenny = 16m 370cm

Total length of rope purchased = 56m 570cm.

8.) a) $(1111)_2 = 1\times2^3 + 1\times2^2 + 1\times2^1 + 1\times2^0$
$= 8 + 4 + 2 + 1 = 15$
$= (15)_{10}$

b) $(10000)_2 = 1\times2^4 + 0\times2^3 + 0\times2^2 + 0\times2^1 + 0\times2^0$
$= 2^4 = 16$
$= (16)_{10}$

Section-C

9.) Length of shoe box in mm = 200 mm
Breadth of shoe box in mm = 300 mm
Breadth of shoe box is 100 mm more than its length.

10.) a) $(921)_{10}$

	Q	R
921/16	57	9
57/16	3	9
3/16	0	3

$= (399)_{16}$

b) $(188)_{10}$

	Q	R
188/16	11	12 [C]
11/16	0	11 [B]

$= (BC)_{16}$

c) $(100)_{10}$

	Q	R
100/16	36	14 [E]
36/16	2	4
2/16	0	2

$= (24E)_{16}$

11.) Total length that he fenced =

	m	cm
	152	40
	205	10
+	310	39
	667	89

= 667m 89cm

SET-B

BHARTIYA SKILL DEVELOPMENT UNIVERSITY

Registration No.: .....

School of General Education Skills

Session: 2019-20 (Summer Semester)

B. Voc. Program, Summer Semester,

1st In-Sem. Examination

GEN1102 **Time: 1 Hour**

Office Software Tools **Max. Marks: 20**

Instruction: Attempt all questions.

Section – A

05X04 = 20Marks

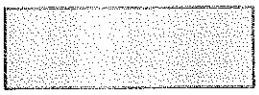
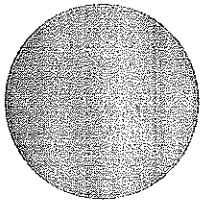
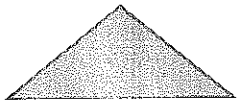
Q1. Write 5 lines on "India", Font-Freesans, Fontsize-14 and heading bold, underline and font color-red

Q2. Make a table for details of students as shown below. Insert 5 entries.

S.No.	Student Name	Branch Name	School	Date of Joining

Q3. Make a text box to write " Proud To Be Indian" in it with font color: Green, font size: 16 and fill it with orange colour.

Q4. Make a table with heading: Colours, One column showing colour name and other indicating its coour filled in different shapes. Fill coloursin shapes.

Colour Name	Colour
Green	
Orange	
Blue	

Registration No.: .....

BHARTIYA SKILL DEVELOPMENT UNIVERSITY

School of General Education

Session: 2019-20 (Summer Semester)

B. Voc. Program, 1st Semester,

1st In-Sem. Examination

Course Code: GEN1101 **Time: 1 Hour**

Course Name: English Language & Comprehension **Max. Marks: 20**

Instruction: The question paper comprises three sections A, B & C. Marks allotted are mentioned against each section.

Section-A (1*5=5)

Q1. Copy the following sentences and underline the pronoun in each sentence:

(a) Suresh is a teacher and he lives in Ajmer.
(b) The baby is smiling because it is happy.

Q 2. State whether the following sentences are True or False:

(a) Helen liked Miss Sullivan.
(b) Velu lived in a big house near the forest.

Q3. Identify the countable and uncountable nouns in the following words:

(a) Sugar
(b) Cow

Q 4. Fill in the blanks with the correct options:

(a) Velu was a _____. (fisherman/student)
(b) Though Helen could not hear or see, she was a _____ girl. (dull/bright)

Q 5. Match the following:

(a) Proper Noun	(i) Helen Kellar
(b) Pronoun	(ii) She

Section- B (2*3=6)

Q 6. Explain the following lines with reference to the context:

Velu, I've not caught any fish today. We are very hungry. Will you give me two small fish?

Q 7. What happened to Helen after her illness?

Q 8. Describe the nature of Velu.

Section- C

(3*3=9)

Q 9. Write a summary of the lesson 'Velu- A Fisherman'.

Q 10. Write a short introduction of yourself in about 10 sentences.

Q 11. Make sentences of your own using the words given below: (total six sentences)

(a) small

(b) parents

(c) strong

(d) kind

(e) teacher

(f) day

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Registration No.....

Bhartiya Skill Development University

School of General Education

I In-Semester Examination- Sep, 2019

Summer Semester, Sem-I (2019-20), B.Voc. Program

English Language & Comprehension
Course Code: GEN-1101

Answer Key

Time: 1 Hour
Max. Marks: 20

Instructions: The question paper comprises three sections A, B & C. Marks allotted are mentioned against each section.

Section-A **(1*5=5)**

Ans1. (a) he

(b) it

Ans2. (a) True

(b) False

Ans3. (a) Uncountable

(b) Countable

An 4. (a) (i)

(b) (ii)

Ans5. (a) Fisherman

(b) bright

Section- B **(2*3=6)**

Ans 6. These lines have been taken from the story, 'Velu-A Fisherman'. These lines were said by a fisherman to Velu. This fisherman had been unable to catch any fish that day and had nothing to eat that night. Therefore, he came to Velu asking him to share two small fish with him.

Ans 7. After illness, Helen could not see or hear anything.

Ans 8. Velu was a greedy and selfish fisherman. He was unkind and unpleasant too as he never liked to share his fish with other fishermen. Later, he became kind and generous and started helping other fishermen.

Section- C **(3*3=9)**

Ans 9. Velu was a fisherman who lived in a small house near the sea. He had good nets and a strong boat for fishing. Velu was greedy and selfish by nature. He was unkind too as he never liked to share his fish with other fishermen.

One day, Velu went fishing to the sea with his fellow fishermen. Velu, being greedy, went a long way into the sea and caught plenty of fish. The fish he caught were small in size. Suddenly, Velu saw many big fish and wanted to catch them. So, he threw away all his small fish and cast the net again to catch the bigger fish. The other fishermen offered to help him, but Velu refused to take their help. Hence, they all went away.

Velu caught a lot of big fish this time in his net. The net became so heavy that Velu could not pull it into his boat alone. The fish broke the net and escaped into the sea, damaging the fishing net. Velu realized his mistake and decided not to be greedy again. At night, Velu and his wife had nothing to eat. His friend fisherman offered them fish for dinner and also promised to help Velu mend his net.

Ans 10. Students will write their individual answers including their name, qualifications, hobbies, family, goals, strengths and weaknesses etc.

Ans 11. Students will write their individual answers.

Registration No.: .....

BHARTIYA SKILL DEVELOPMENT UNIVERSITY

School of General Education

Session: 2019-20 (Summer Semester)

B. Voc. Program, 1st Semester

1st In-Sem. Examination

Course Code: GEN 1103 **Time: 1 Hour**

Course Name: Applied Mathematics **Max. Marks: 20**

Instruction:

1. All questions are compulsory.
2. Missing data if any can be suitably assumed.
3. Calculator is not permitted.

Section – A

$05 \times 01 = 05$ Marks

Q1. Which one of the following collections is not a set?

(a) The collection of all the days of a month.

(b) The collection of all best movies.

(c) The collection of all the months of a year beginning with the letter 'M'.

(d) The collection of all players in a team.

Q2. If A = {1, 2, 3, 4, 5, 6, 7, 8, 9}, then which one is true?

(a) $A = \{x : x \in R \text{ and } x < 10\}$

(b) $A = \{x : x \in N \text{ and } x < 10\}$

(c) $A = \{x : x \in N \text{ and } x \leq 10\}$

(d) $A = \{x : x \in C \text{ and } x < 10\}$

Q3. $\lim_{x \to 3} 3x(x+1) =$

(a) 4

(b) 36

(c) 46

(d) 50

Q4. $\lim_{x \to 1} 2x^3 + 3x + 10 =$

(a) 12

(b) 64

(c) 15

(d) -16

Q5. If A = {1, 3, 5, 7} and B = {2, 3, 6, 8}, then A-B is

(a) A-B = {1, 3, 5, 7}

(b) A-B = ϕ

(c) A-B = {2, 3, 6, 8}

(d) A-B = {1, 5, 7}

Section – B

$03 \times 02 = 06$ Marks

Q6. Write the following sets into set-builder form:

(i) A = {3, 9, 27,.....}

(ii) A = {2, 4, 6, 8, 10}

Q7. If U = {a, b, c, d, e, f, g, h}, A = {a, b, c} and B = {d, e, f, g}, then find

(i) $(A \cup B)'$ (ii) $A' \cap B'$

Q8. Evaluate $\lim_{x \to 1} \frac{x^2 + 2 + 5ax^3}{x^4}$.

Section – C

$03 \times 03 = 09$ Marks

Q9. Write the power set for the following sets:

(i) A = {a, b, c}

(ii) B = {1, {2, 3}, 4}

Q10. Evaluate $\lim_{x \to 0} \frac{\sqrt{a^2 + x^2} - \sqrt{a^2 - x^2}}{x^2}$.

Q11. Define:

(i) Subset

(ii) Limit

****

Answer keys

UEN 1103

Sec A

Q.1 (b)

Q.2 (b)

Q.3 (b)

Q.4 (c)

Q.5 (d)

Sec. B

Q.6 (i) given

$$A = \{3, 9, 27 \ldots\}$$

$$A = \{3^n, n \in N\}$$

(ii) given

$$A = \{2, 4, 6, 8, 10\}$$

$$A = \{2n : n \in N, 1 \le n \le 5\}$$

Q.7 given $U = \{a, b, c, d, e, f, g, h\}$

$$A = \{a, b, c\}$$

$$B = \{d, e, f, g\}$$

(i) $(A \cup B)' = U - (A \cup B)$

$= \{a, b, c, d, e, f, g, h\} - \{a, b, c, d, f, g\}$

$= \{h\}$

(ii) $A' = U - A = \{d, e, f, g, h\}$

$B' = U - B = \{a, b, c, h\}$

$A' \cap B' = \{h\}$

Q.8 $= \lim_{x \to 1} \frac{x^2+2+5ax^3}{x^4} = 1+2+5a = 3+5a$

Sec C

Q.9 (i) given $A = \{a, b, c\}$

$P(A) = \{\phi, \{a\}, \{b\}, \{c\}, \{a,b\}, \{b,c\}, \{c,a\}, \{a,b,c\}\}$

(ii) given $B = \{1, \{2,3\}, 4\}$

$P(B) = \{\phi, \{1\}, \{\{2,3\}\}, \{4\}, \{1, \{2,3\}\}, \{1,4\}, \{\{2,3\},4\}, \{1, \{2,3\}, 4\}\}$

Q.10 $\lim_{x \to 0} \frac{\sqrt{a^2+x^2}-\sqrt{a^2-x^2}}{x^2}$ $\frac{0}{0}$ form

$\Rightarrow \lim_{x \to 0} \frac{\sqrt{a^2+x^2}-\sqrt{a^2-x^2}}{x^2} \times \frac{\sqrt{a^2+x^2}+\sqrt{a^2-x^2}}{\sqrt{a^2+x^2}+\sqrt{a^2-x^2}}$

$\Rightarrow \lim_{x \to 0} \frac{(a^2+x^2)-(a^2-x^2)}{x^2\left[\sqrt{a^2+x^2}+\sqrt{a^2-x^2}\right]}$

$= \lim_{x \to 0} \frac{2x^2}{x^2\left[\sqrt{a^2+x^2}+\sqrt{a^2-x^2}\right]} = \frac{2}{\sqrt{a^2}+\sqrt{a^2}} = \frac{1}{a}.$

Q.11 Subset : A set 'A' is called the subset of set B, if every element of set A belongs to set B.

Limit :- If $x \to a$ and $f(x) \to l$, then l is called the limit of the f^n $f(x)$. $\left[\lim_{x \to a} f(x) = l\right]$

Section – B

03X02 = 06 Marks

03 short answer type questions, each question carries 02 marks.

Que -06 Explain any two rules to add "es" in the end of the verb with examples.

Que -07 Explain about first, second and third person.

Que-08 Write the form/structure of sentence in Affirmative sentence of present perfect tense with an example.

Section – C

03X03 = 09 Marks

03 essay type questions, each question carries 03 marks.

Que- 09 Explain any four rules to add "ing" in the end of verb with examples.

Que-10 Write sentences about yourself.

a) (name?) My.....
b) (from?) I.....
c) (age?) I.....
d) (Job?) I.....
e) (favorite colour or colours?) My.....
f) (interested in ?) I.....

Ques-11 When to use the present perfect tense? Explain with examples.

BHARTIYA SKILL DEVELOPMENT UNIVERSITY

English Answer Sheet

Sec A

Ans 01-b) is

Ans 02 -d) are

Ans 03-c) was

Ans 04-b) it's got

Ans 05-c) are your parents well?

Sec B

Ans 06-Two rules to add "es" in the end of the verb are-

Rule -01

If a verb ends with word S / SH / CH / X then we will add es after these words.

For example-

1) pass- passes
2) Search – searches
3) Wish- wishes

Rule -02

If a verb ending with Y and just before it a Vowel then we simply add s after y

For example- buy- buys

In case there is no vowel before y then we will remove y and add ies.

For example-

Try- Tries

Ans 07-

First person-

The person or people speaking or the first person is someone telling you his or her story.

For example- I, We.

Second person –

The second person is you being told how you should do something or the person or people being spoken to.

For example- You.

Third person- The person or people being spoken about.

For example- HE, She, They.

Ans 08-

The form/structure of sentence in Affirmative sentence of present perfect tense is-

Form- Subject + has/have + verb (3^{rd} form) + object.

For example-1) Ram has gone to school.

2) I have played.

Sec -C

Ans-09 Four rules to add "ing" in the end of verb-

Rule 01- If a verb ends with "e"then remove "e" and add ing.

For example - Come- Coming

Rue-02- If the last word of verb is consonant and before it one vowel so last consonant get double and after it we need to add ing.

For example- Put-Putting

Rule 03-If the last word of verb is consonant and before it two vowels so last consonant will not get double. Simply we need to add ing after the last consonant.

For example- Read-Reading

Rule 04-If the end word of a vowel is y or ll then we will not remove y or ll but will add ing just after y or ll.

For example- Fly – Flying

Tell- Telling

Ans-10 Write sentences about yourself. For example-

g) My Name is Arya.
h) I am from New Delhi.
i) I am 22.
j) I am a student
k) My favorite colour is Black.
l) I am interested in art.

Ans 11-We use present perfect tensein case of -

1) To describe an experience. For example- I have travelled the world.
2) To describe a change over a period of time. For example- house price have increased a lot.
3) To describe accomplishment. For example- doctors have discovered cures for many diseases.
4) A continuing action that started in the past. For example- Sam has worked here for seven years.

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Q 2. How many inches are there in 1.5 meter?

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Q 4. Which one of the following is 7% of 50?

(A) 3.5 (B) 7.5 (C) 3 (D) 7

Q 5. Which one of the following is the value of $20/20^5$?

(A) 0.01 (B) 0.001 (C) 0.0001 (D)None of these

Section – B

Q.6 Calculate the volume of cylinder in $(mm)^3$ having diameter 10 cm and height 35 cm.

Q.7. Calculate the volume of cube in $(mm)^3$ having length of side 0.0025 m.

Q.8. Find out the value of $[(100)^2 + (10)^2 + (1)^2]$ cm in mm.

Section – C

Q 9. Find out the value of $[(100)^2 + 4(10)^2 + (100)^2]$ cm / $[3(10)^2 + 2(10)^2 + (10)^1]$ cm in meter.

Q 10. Ram purchased a table in 4600 Rs and sold it with 20% profit. find out the selling price, if Ram wants to earn double of its profit by keeping selling price same what should be the purchasing price.

Q 11. Carpenter buy an Almira in 5000 Rs and sold it with 15% loss. find out the selling price, if Carpenter wants to earn 10% profit by keeping selling price same, what should be the purchasing price for Almira.

Registration No.: .....

BHARTIYA SKILL DEVELOPMENT UNIVERSITY

Sample Question Paper

School of General Education

B. Voc. Program, 1st SEM

Course Code: GEN SHT 1104 **Time: 1 Hour**

Course Name: SHT Elementary Mathematics **Max. Marks: 20**

Instruction:

1. All questions are compulsory.
2. Missing data if any can be suitably assumed.

Section – A

05×01 = 05 Marks

Q1. Addition: ₹ 15,369 + ₹ 10,899 =?

(A) ₹ 26,358
(B) $ 25,958
(C) ₹ 26,268
(D) ₹ 26,438

Q2.Subtraction: ₹ 13,567 - ₹ 2,099 =?

(A) ₹ 11,468
(B) ₹ 11,356
(C) ₹ 11,326
(D) $11,468

Q3. Multiplication: ₹ 1,078 x 691 =?

(A) $744,898
(B) $ 744,988
(C) ₹ 744,988
(D) ₹ 744,898

Q4. Division: ₹ 115,620 / 12 =?

(A) ₹ 9,739
(B) $ 9,739
(C) $ 9,635
(D) ₹ 9,635

Q5.Calculate: 2765 – 1796 – 1345 – 24 + 354 =

(A) – 64
(B) – 46
(C) + 64
(D) + 46

Section – B

03×02 = 06 Marks

Q6.Write the table of eight (8) from 8 to 96:

8 ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ 96

Q7. We buy 6kg potatoes for ₹ 90.

How much do we have to pay for 2kg of potatoes? _____

Q8.We have 26 bananas and distribute them equally to 7 children.

How many bananas does each child get? _____

and how many bananas do I have after equal distribution? _____

Section – C

$03 \times 03 = 09$ Marks

Q9.We've got three restaurant guests at the diner. The bill for your consumption is: ₹ 924

One guest pays₹500. The other two guests share the rest of the bill. How much does guest 2 pay and how much does guest 3 pay?

Guest 2 pay: _____ Guest 3 pay: _____

Q10.I shop at the market:

- 3 kg tomatoes à ₹ 20 per kg _____
- 4 Eggplants à ₹ 25 per piece _____
- 6 bananas à ₹5 per piece _____
- 2 kg potatoes à ₹ 15 per kg _____

Calculate the price I must pay:

==========

Q11.You work in housekeeping and start preparing a new guest room with bathroom at 9:00 o'clock. If you work alone you need 34 minutes.

When will you be ready when someone helps you and two of you work? _____

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Answer key

Elementary Mathematics SHTS

Q1. (C) ₹ 26,268

Q2.(A) ₹ 11,468

Q3. (D) ₹ 744,898

Q4.(D) ₹ 9,635

Q5. (B) – 46

Q6. 8, 16, 24, 32, 40,48, 56, 64, 72, 80, 88, 96

Q7. ₹ 30

Q8. 3 banana / 5 banana

Q9. Guest two pays- ₹212 & Guest three pays - ₹212

Q10. ₹220

Q11. At 9:17