Course Code: MATH2115
Subject: Basic Algebra

SECTION: I (MCQ's)

Time Allowed: 20 Minutes

Max. Marks: 18

NOTE: Encircle the correct/ best answer in each of the followings. Each Question carries 1 mark. Use of remover carries zero mark. Cutting and Overwriting is not allowed.

Q1.

- For any subset A and B of U, $(A \cap B)^c$ =...
  - a) $A \cap B$
  - b) $A \cup B$
  - c) $A^c \cap B^c$
  - d) $A^c \cup B^c$
- Identity relation in A = {1, 2, 3} is...
  - a) {(1, 1), (2, 2)}
  - b) {(1, 1)}
  - c) {(1, 1), (2, 2), (3, 3)}
  - d) {(2, 2)}
- What comes next in the sequence: 1, 2, 6, 22, ...?
  - a) 82
  - b) 84
  - c) 86
  - d) 88
- If $f(x) = -2x+8$, then $f^{-1}(1)$ =...
  - b) 9/2
  - b) 7/2
  - c) 2/9
  - d) 0
- What is the 11th term of the sequence: 1, 3, 9, 27,....?
  - a) 2^8
  - b) 2^{10}
  - c) 3^8
  - d) 3^{10}
- Two distinct square roots of unity are...
  - a) -1, 1
  - b) -1, ω
  - c) 1, -ω
  - d) -1, -1
- Matrix which does not have an inverse by solving it, is classified as...
  - a) Undefined matrix
  - b) Linear matrix
  - c) Non-singular matrix
  - d) Singular matrix
- If roots of $x^2 - 5x + a = 0$ are equal, then a =...
  - a) 25/5
  - b) 25/4
  - c) ± 25/4
  - d) ± 25/5
- Period of cot(x) is...
  - a) π
  - b) 2π
  - c) 3π
  - d) 4π
- If $x^2 - 7x + a$ has a remainder 1 when divided by $x + 1$, then...
  - a) $a = -7$
  - b) $a = 7$
  - c) $a = 0$
  - d) $a = 1$
- Coefficient of the x^3 in the expansion of $(1 - x + x^2)^5$ is...
  - a) -30
  - b) -20
  - c) -10
  - d) 30
- Sum and product of roots of equation $x^2 - kx + k^2 = 0$ are...
  - a) k, k^2
  - b) k^2, k
  - c) $-k, k^2$
  - d) $-k^2, k$
- If $\cos\theta = 1/\sqrt{2}$, then θ is equal to...
  - a) 30°
  - b) 45°
  - c) 60°
  - d) 90°
- If α and β are roots of $x^2 - 2x + 3 = 0$, then equation with roots $1/\alpha$, $1/\beta$ is...
  - a) $x^2-6x+11= 0$
  - b) $x^2+6x-11= 0$
  - c) $x^2-11x+6= 0$
  - d) $3x^2-2x+1= 0$
- Constant term in the expansion of $\left(1 + \frac{x}{2} - \frac{2}{x}\right)^4$ is...
  - a) 5
  - b) -5
  - c) 4
  - d) -4
- If ω is imaginary cube root of unity, then quadratic equation with roots -3ω and $-3\omega^2$ is...
  - a) $x^2+3x+9= 0$
  - b) $x^2-3x+9= 0$
  - c) $x^2-2x+4= 0$
  - d) $x^2+2x+4= 0$
- $\cos^2\theta/2$ =...
  - a) $1- \sin^2(\theta/2)$
  - b) $1- \sin^2\theta$
  - c) $\csc^2(2\theta)$
  - d) $\sec^2(2\theta)$
- System of measurement in which angle is measured in radians called the...
  - a) Circular system
  - b) MKS system
  - c) CGS system
  - d) Sexagesimal system

UNIVERSITY OF EDUCATION

"UExam" Semester-IV, 2019

MA Education/MA Education L & M, Session:2017-19

No. ___44___

Course Code: ENGL2115 (Educational Research)
Subject: Technical Writing and Presentation Skills

Roll No. (in fig.)_____

Roll No. (in words)_____
_____

SECTION: I (MCQ's)

Candidate's Signature.
_____

Time Allowed: 20 Minutes

Max. Marks: 18

Signature of Addl. Supdt.
_____

NOTE: Encircle the correct/ best answer in each of the followings. Each Question carries 1 mark. Use of remover carries zero mark. Cutting and Overwriting is not allowed.

Q1.

- Eye contact of longer than _____ seconds can make a participant uncomfortable.
  a) 2-3   b) 3-5   c) 1-2   d) none of these
- _____ is delivered via nonverbal communication.
  a) 75%   b) 55%   c) 80%   d) none of these
- Generally , A descriptive writing contains _____
  a) sensory details   b) story telling   c) amusement   d) none of these
- An alphabetical list of subtopics is called
  a) text   b) appendix   c) glossary   d) index
- A _____ explains fictional events and characters in a sequential manner.
  a) Myth   b) Autobiography   c) short story   d) Novel
- The way to stand and sit is called _____
  a) Posture   b) movement   c) gesture   d) facial expression
- In order to remove stage fright we should use
  a) podium   b) lecterns   c) voice   d) both a & b
- which one of the following is not a visual aid
  a) Flip charts   b) posters   c) graphs   d) paralanguage
- A presentation delivered by reading from notes
  a) Impromptu   b) memorization   c) manuscript   d) extemporaneous
- highness and lowness of voice is called _____
  a) pitch   b) accent   c) pronunciation   d) rate
- _____ writing is the art of describing places, persons ,objects and events
  a) argumentative   b) Narrative   d) discursive   d) descriptive
- telling examples to explain something is called
  a)narration   b)description   c)illustration   d)process analysis
- Synopsis is
  a) research proposal   b) annotation   c) summary   d) none of these
- _____ is a popular tool that helps you generate creative solution to the problem.
  a) essay writing   b) report writing   c) research proposal   d) brainstorming
- A _____ report is a written document regarding the status of an activity
  a) technical   b) progress   c) feasibility   d) none of these
- Personnel in Progress report is _____
  a) work remaining   b) work accomplished   c) names of people   d) none of these
- Time division of Main body in a presentation is
  a) 15%   b) 45%   c) 10 %   d) 60%
- _____ is the main idea/central point of your research paper
  a) thesis statement   b) dissertation   c) preface   d) none of these

UNIVERSITY OF EDUCATION
"UExam" Semester-IV, 2019
BS Zoology Session:2017-21

Course Code: MATH2115
Subject: Basic Algebra

Time Allowed: 100 Minutes.   Max. Marks: 42

Section II (Short Answer)

Q.2- Write short answers of the following.

$3\text{x}6 = 18$

(i) If we subtract 27 from three times a certain number, the result is 18. Find the number.

(ii) Find the tenth term in the expansion of $(2x^2 + \frac{1}{x^2})^{25}$.

(iii) Solve $2x^2 + 12x - 5=0$ by completing square method.

(iv) Solve the following system by Cramer's rule.
$$6x+3y = 2$$
$$3x+2y = -4$$

(v) Prove that for all positive integers n, the number $3^{2n} - 1$ is divisible by 8.

(vi) Find three cube roots of 27.

Section III (Essay Type)

Answer the following Questions

$6\text{x}4 = 24$

Q. 3: State and prove binomial theorem.

Q. 4: A strip of uniform width cut from both sides and both ends of a 5-inch by 7-inch photograph reduces the size of the photo to an area of 15 square inches. Find the width of the strip.

Q. 5: Find the sum of $1 + \frac{1}{2} + \frac{1}{4} + ... + \frac{1}{256}$.

Q.6: Verify that $f(x) = 4x-5$ and $g(x) = \frac{x+5}{4}$ are inverse functions.

UNIVERSITY OF EDUCATION
"UExam" Semester-IV, 2019
MA Education/MA Education L & M, Session:2017-19

Course Code: ENGL2115 (Educational Research)
Subject: Technical Writing and Presentation Skills

Time Allowed: 100 Minutes.

Max. Marks: 42

Section II (Short Answer)

Q.2- Write short answers of the following.   3x6 = 18
  i.   What is the importance of table of contents in a formal proposal?
  ii. Define descriptive essay.
  iii. Define Memorization.
  iv. What does the term glossary mean?
  v.   Give three points to decrease stage fright.
  vi. Write three means of nonverbal communication

Section III (Essay Type)
Answer the following Questions   6x4 = 24

Q.3 write down Parts of a progress report.

Q.4 Jot down essential steps for preparing presentations effectively.

Q.5 what are the basic steps of a research proposal?

Q.6 write an essay of (100-120)words on any one of the following.

    Energy Crisis

    Or

Causes of Popularity of Fast food Resturants