

DREAM
UNIVERSITY

PART I: Write 'True' if the statement is correct and 'False' for the incorrect one (1 pt. each)

1. The central rift is the narrowest and the elevated part of the rift valley system.
2. Denudation and peneplanation are the major geological events of the Mesozoic era.
3. Due to latitudinal extension, Ethiopia experiences tropical climate.
4. Ethiopia has more compact shape than all neighboring countries based on Boundary circumference ratio.
5. The Adigrat sandstone is older and thicker in the North West but younger and thinner in south east.

PART II: Match Items under column 'A' with their corresponding cases under column 'B' (1pt.)

Column A	Column B
1. Mount Bwahit	A. The Shewa Plateau
2. Mount Guraghe	B. The Tigray Plateau
3. Guge Mount	C. The North Central Massifs
4. Mount Tsibet	D. The Southwestern Highland
5. Mount Bada	E. The Arsi-Bale-Sidama Highlands

PART III: Choose the best answer from the given alternatives and write letter of your choice only on space provided on the answer sheet (1 point each)

1. Which one of the following is **incorrect** about the concept of Geography?
   A. It studies both the physical and anthropogenic dimensions
   B. It is holistic and interdisciplinary field of study
   C. Its definition has remained the same spatiotemporally
   D. Naturally, it is dynamic with changes in scope and methods of study
2. Which of the following is **correct** about the Ethiopian topography?
   A. Most of the peripheral parts of Ethiopia are highlands
   B. Most of the central parts of Ethiopia are lowlands
   C. Most of the highest mountains of Ethiopia are situated in the south western physiographic region
   D. Most of the Ethiopian lowlands are situated in the Southeastern physiographic region

3. Which of the following is the correct order of the rocks in Ethiopia when arranged from the **youngest** to the **oldest**?

A. Upper sandstone ➲ Hintalo limestone ➲ Adigrat sandstone ➲ Basement rocks ➲ Trappean series ➲ Aden series

B. Aden series ➲ Trappean series ➲Upper sandstone ➲ Hintalo limestone ➲ Adigrat sandstone ➲ Basement rocks

C. Basement rocks ➲ Adigrat sandstone ➲ Hintalo limestone ➲ Upper sandstone ➲ Trappean series ➲ Aden series

D. Aden series ➲ Adigrat sandstone ➲ Upper sandstone ➲ Hintalo limestone ➲ Basement rocks ➲ Trappean series

4. Identify the correct arrangement of western highlands based on geographical coverage in **descending order**.

A. The Shewa Plateau/central highlands ➲ The Tigray Plateau ➲ The Southwestern Highlands ➲ North Central Massifs

B. The Tigray Plateau ➲ The Shewa Plateau/central highlands ➲ North Central Massifs ➲ The Southwestern Highlands

C. North Central Massifs ➲ The Southwestern Highlands ➲ The Tigray Plateau ➲ The Shewa Plateau/central highlands

D. The Southwestern Highlands ➲ The Tigray Plateau ➲ North Central Massifs ➲ Shewa Plateau/central highlands

5. From the following countries, which has relatively an elongated shape?

A. Somalia B. Eritrea C. Ethiopia D. Djibouti

6. Identify the one which is an example of a '**geomorphic process**.

A. Folding B. Weathering C. Volcanicity D. Faulting

7. Which one of the following is the **incorrect** combination?

A. Gold ➲ Metekel area

B. Platinum ➲ Yubdo

C. Potash ➲ Danakil

D. Tantalum ➲ Ambo

8. Of the following, which one is the major geological event of the 'Precambrian era"?

A. Intensive folding and igneous intrusion

B. The formation of the Ethiopian rift valley system

C. The uplifting of the Arabo -Ethiopian landmasses

D. The alternative rising and sinking of the Horn and Ethiopian landmasses

9. Which part of the Ethiopian rift valley system is the largest and widest?

A. The Afar Triangle B. The main rift C. The Chew Bahir rift D. The lakes region

10. The heavy pluvial rains and the disappearance of dinosaurs have happened during ---------- and ----------periods, respectively.

A. Quaternary, Tertiary

C. Cretaceous, Quaternary

B. Quaternary, Cretaceous

D. Silurian, Devonian

11. All of the following are the characteristics of the Ethiopian highlands **except;**

A. Moderate and high amounts of rainfall

C. Suitable for mechanized farming

B. Lower mean annual temperature

D. Free from tropical diseases

12. Which one of the following part of the western highlands has largest proportion of upper highlands?

A. Southwestern highlands

C. North Central Massifs

B. Tigray plateau

D. Shewa plateau

13. The Southeastern lowlands of Ethiopia are best described with all of the following features **except;**

A. Harsh climatic conditions

C. Sedentary way of life

B. Extensive arable land

D. High potential for petroleum and natural gas

14. Which human-environment interaction entails a human's self-modification capacity in new environments with new challenges?

A. Mitigation B. Adaptation C. Dependency D. Translocation

15. Which one of the following statements is **incorrect** about geological time scale?

A. The name of the Era indicates the kind of life existed in it

B. The geological time divisions vary from each other

C. The division of time units is based on the occurrence of geological events

D. The geological time division has uniform interval

PART IV: Answer the following questions according to the nature of the question

1. Discuss the geopolitical implications of location of Ethiopia (3 points)
2. Assume country 'X' has a total area of 22,000km² with a boundary length of 600km. Based on the given data, calculate the Boundary Circumference ratio of country 'X' and explain the result (2 points). Hint, the inference is circle.

PART ONE: Reading Questions

Instruction: First, read the reading text attentively; then, use the information to answer the questions that follow.

The Impact of Brain-drain

Brain-drain, which is the action of having highly skilled and educated people leaving their country to work abroad, has become one of the developing countries' concern. Brain-drain is also referred to as human capital flight. More and more third world science and technology educated people are heading for more prosperous countries seeking higher wages and better working conditions. This has of course serious consequences on the sending countries.

While many people believe that immigration is a personal choice that most be understood respected, others look at the phenomenon from a different perspective. What makes those edu people leave their countries should be seriously considered and a distinction between push an factors must be made. The push factors include low wages and lack of satisfactory worki living conditions. Social unrest, political conflicts and wars may also be determining causes. factors, however, include intellectual freedom and substantial funds for research.

Brain drain has negative impact on the sending countries economic prospects and competit reduces the number of dynamic and creative people who can contribute to the developm country. Likewise, with more entrepreneurs taking their investments abroad, developing missing an opportunity of wealth creation. This has also negative consequences on tax employment.

Most of the measures taken so far have not had any success in **alleviating** the effect A more global view must take into consideration the provision of adequate wo conditions in the sending countries. Another option should involve encouraging contribute **their** skill to the development of their countries without necessarily phy

lead you to success. Don't [redacted] part in any activities that might hold you back from your study track. [redacted] an effort to prepare yourselves for learning before, during and after class. After class, when you have got free time, make a plan and [redacted] what to study and where to study. And also choose whom to study with. If you do these, then you will be short of nothing to score an A."

Direction II: Complete the following conversation using appropriate modal verbs of giving advice (2.5%).

Journalist: The Olympians who were sent to Japan from Ethiopia for Tokyo 2020 Olympic Games have brought one gold, silver and two bronze medals from about 1600 medals of the competition. Even in the long distance races that Ethiopia had continually finished first and secured the gold medal in many Olympic Games, the athletes dropped out of the track. What [redacted] the training be like to avoid such a problem in the future?

Senior Athlete: There is rumour that there is a very serious corruption among some of the Ethiopian Sport Federation leaders and clubs involving in athletics training. When there is this kind trend in the sport, it is difficult to find the right athlete. Ethiopian Culture and Tourism Ministry [redacted] interfere and try to avoid such a problem before it is too late.

Journalist: [redacted] Letesenbet Gidey take part in short distance races like 1500m or long distances such as Marathon next season?

Senior Athlete: I don't think so. After all, she is a young girl. She [redacted] to not run Marathon until she is 23 or above.

Journalist: *Most of the time the European countries have few long distance runners. Thus, these athletes have a tight competition in different distances. Do you think it is a good experience to bring to our country?*

Senior Athlete: No, we [redacted] bring this experience to our country because athletes can easily get exhausted and may not be effective to win games; furthermore, it may seriously hamper the work of producing younger athletes.

Journalist: Thank you so much for being here.

Direction I: Match the main ideas in 'A' with the respective paragraphs in 'B' (4%).

'A'	'B'
1 Brain-drain impedes the development of sending countries	a. Paragraph 1
2 Brain-drain has been among the challenges of developing countries	b. Paragraph 2
3 More actions are required to be taken to deal with brain-drain	c. Paragraph 3
4 Two factors contributing to brain-dram as the writer's view	d. Paragraph 4

Direction II: Write the noun or noun phrase referring to each pronoun below; define the words in bold contextually as well (6%).

1. '**This**' in paragraph 1 refers to
2. '**It**' in paragraph 3 refers to
3. '**Their**' in paragraph 4 refers to
4. '**Prosperous**' in paragraph 1 means
5. '**Perspective**' in paragraph 2 means
6. '**Alleviating**' in paragraph 4 means

PART TWO: Grammar in use

Direction I: Choose one of the infinitives from the box; then, fill in the blank spaces in the text (2.5%).

take	choose	be	put	decide	bother	do	participate

Dereje's words of advice were so encouraging. As he had first entered a class, he warmly greeted his students and checked if everyone was there. He was well known in fixing the hearts of the pessimists. Once he motivated his learners through the following encouraging words of advice. "You fought a good fight and ran the race of the high school efficiently. Now you are members of higher education having another tough race that needs much more effort. Don't _____ thinking about scoring a D or an F, but _____ hopeful and work hard in all courses you take each semester; and use your time very effectively because effective use of time will

Direction III: Complete the following conditional sentences with the appropriate forms of the verbs given in the brackets (5%).

1. The weather [redacted] (freeze) if the temperature falls below zero.
2. If there were no commercial sex workers, the spread of AIDS [redacted] (be) low.
3. It could have been possible to stop the spread of Covid 19 if the first victim of the virus [redacted] (identify) early.
4. If you do physical exercises regularly, you [redacted] (have) strong and healthy body.
5. If you [redacted] (miss) the classes, you could have passed the exam.

Direction IV: First, change the form of the verbs in brackets. Then, complete the text below with the appropriate tense (5%).

Since computers were first introduced to the public in the early 1980's, technology (change) [redacted] a great deal. The first computers (be) [redacted] simple machines designed for basic tasks. They (have, not) [redacted] much memory and they (be, not) [redacted] very powerful. Early computers were often quite expensive and customers (pay) [redacted] thousands of dollars for machines which actually did very little task. Most computers (be) [redacted] separate, individual machines used mostly as expensive typewriters or for playing games. Time (change) [redacted] *Computers* (become) [redacted] powerful machines with very practical applications. Programmers (create) [redacted] a large selection of useful programs which do everything from teaching foreign language to bookkeeping. We are still playing video games, but today's games (be) [redacted] faster and more exciting.

Part I: From the given alternatives choose the best answer for the following Questions. **(Each 1 Pt)**

1. Which of the following rule is not true in determining significant digits in a given number
   B. All non-zero numbers are significant.
   C. Zeros within a number are always significant
   D. Zeros that follow a number may be significant
   E. Zeros that do nothing but set the decimal point are significant
2. Vector **A** has x and y components of -8.7 cm and 15.0 cm respectively; vector **B** has x and y components of 13.2 cm and -6.6 cm respectively. If **A-B+3C= 0**, what are the components of **C**?
   A. (7i – 8j) cm B. (7.2i + 7.3j) cm C. (7.3i – 7.2j) cm D. (8i – 7j) cm
3. One of the following is not unit of density
   A. kg/Litre B. (gram)/(mm)^3 C. Newton/(km)^3 D. Pascal/(m^2/s^2)
4. Which of the following is not true about gravitational force between two bodies?
   A. It is always an attractive force
   B. It is a force exerted by small sized particles
   C. The magnitude of the force is the same on each bodies
   D. It is along a line joining the centers of mass of these two bodies
5. For objects moving in a circular path with a constant speed, acceleration arises because of:
   A. The change in direction of the velocity
   B. The change in magnitude of the velocity
   C. The frictional force of the velocity
   D. The center of mass of the moving object
6. The coefficient of static friction between 40kg of table and the ground is 0.5. What is the greatest horizontal force that could be exerted on the table while it remains stationary?
   A. 170N B. 176N C. 186N D. 196N
7. Two balls of the same mass are moving with the speeds one twice the other. What is the ratio of their kinetic energies?
   A. 1/3 B. ½ C. 4 D. 6
8. The upward force acting on an object submerged in a fluid is called
   A. Drag B. Weight C. Pressure D. Buoyant force
9. Which one of the following is not correct about fluid pressure?
   A. All points at same level in a fluid have same pressure
   B. Fluid pressure increases with increase in the depth of the fluid
   C. Fluid pressure does not depend on the shape of the container
   D. All points at same level in a fluid have different pressure
   E. None of the above

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College of the Natural Sciences

10. The Bernoulli's equation in fluid dynamics is valid for _____
    A. Compressible flows
    B. Unsteady flows
    C. Irrotational flows
    D. Viscous flows

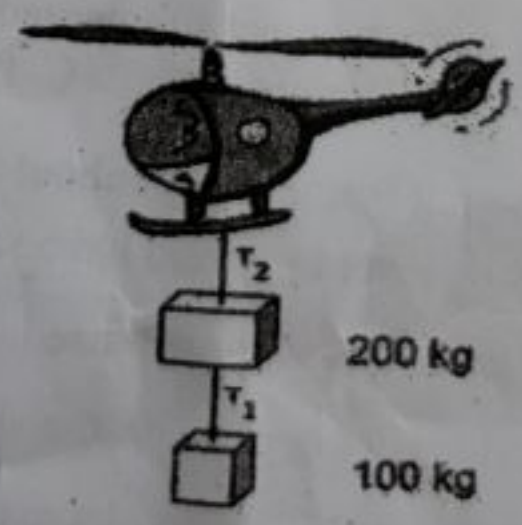
Part II: Give short and clear answers for the following questions.

11. Write the dimensions /units of power in terms of the product of mass, acceleration, and speed. [2pt]
12. State and briefly discuss the three Kepler's laws of planetary motion. [3pt]
13. Define the following terms [3pt]
    A. Elastic material
    B. Plastic material
    C. Elasticity modulus
14. State the continuity equation in a fluid. [2pt]

Part III: Solve the following problems with the necessary steps.

15. Find the force needed to accelerate a mass of 40kg from velocity $\vec{v}_i = (4\hat{\imath} - 5\hat{\jmath} + 3\hat{k})m/s$ to $\vec{v}_f = (8\hat{\imath} + 3\hat{\jmath} - 5\hat{k})m/s$ in 10s [2pt]
16. A fish swimming in a horizontal plane has a velocity $v_0 = (4.0\text{i} + 1.0\text{j})$ m/s at a point in the ocean whose position vector is $r_0 = (10.0\text{i} - 4.0\text{j})$ m relative to a stationary rock at the shore. After the fish swims with constant acceleration for 20.0 s, its velocity is $v = (20.0\text{i} - 5.0\text{j})$ m/s. (a) what are the components of the acceleration? (b) What is the direction of the acceleration with respect to the fixed x axis? (c) Where is the fish at $t = 25$ s and in what direction is it moving? [5pt]
17. A helicopter accelerates vertically upwards at 2m/s^2. Two crates are hanging from the helicopter. Two different cables are used; one cable connect the crates while the other attaches the 200 kg crate to the helicopter as shown in the diagram below. Calculate the tensions T_1 and T_2 in each cable. [3pt]

Vi :
Vf :



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ARBA MINCH UNIVERSITY
COLLEGE OF NATURAL AND COMPUTATIONAL SCIENCES
DEPARTMENT OF PHYSICS

General Physics (Phys-1011) Mid Examination for First Year Natural Science Stream Students

Total Load: 25%
Time Allowed: 2:00

Year: I /Semester I
Date: August 17/2013 E.C

Name _____ **ID No** _____ **Campus & Section** _____

Part I:-Write "true" if the statement is correct and "false" otherwise in the answer sheet provided. (0.5 point each)

1. If an object is pushed against the surface, then the frictional force will be increased and becomes more than the weight of the object.
2. If the acceleration of an object is zero, then that object cannot be moving.
3. If a system is in equilibrium, then the sum of all forces acting on the system must be zero.
4. The horizontal velocity of a projectile is 0 m/s at the peak of its trajectory.
5. The horizontal velocity of a projectile changes by 9.8 m/s each second.

Part II:- Match column 'A' with column 'B' according to the expression given below. (0.5 point each

'A'	'B'
1. All planets move in elliptical orbits with the sun at one focus.	A. Newton's first law
2. A single isolated force cannot exist by itself. Forces always occur in pairs.	B. Kepler's second law
3. When no force acts on an object, the acceleration of the object is zero.	C. Newton's law of universal gravi
4. Every particle in the universe attracts every other particle with a force along a line joining them.	D. Newton' third law
5. The radius vector from the sun to any planet sweeps out equal areas in equal length.	E. Kepler's third law
	F. Hook's law
	G. Kepler's first law
	H. Newton's second law

Part III: Fill the blank space for the following. (1 point each)

1. _____ is the energy that is stored in an object due to its position.
2. _____ is the force generated by two surfaces that are in contact and either at re against each other.
3. Vector that has magnitude of one and it is dimensionless _____.
4. _____ are quantities that can be expressed in terms of fundamental
5. A motion in a curved path in a gravitational field is _____.

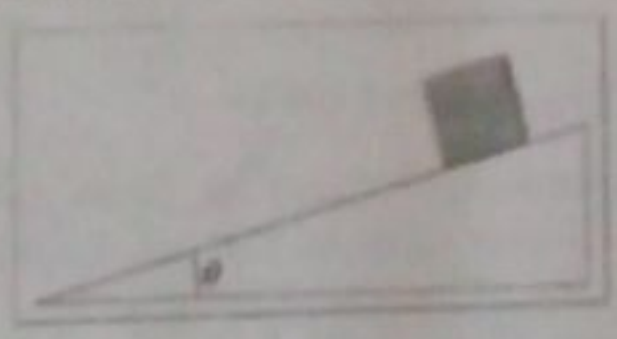
Part IV:-Choose the best answer for the following questions from the given alternati

1. Let $\vec{A} = (2m)\hat{i} + (6m)\hat{j} - (3m)\hat{k}$ & $\vec{B} = (4m)\hat{i} + (2m)\hat{j} + (1m)\hat{k}$. The vecto
   A. $(6m)\hat{i} + (8m)\hat{j} - (2m)\hat{k}$
   B. $(-2m)\hat{i} + (4m)\hat{j} - (4m)\hat{k}$
   C. $(2m)\hat{i} - (4m)\hat{j} + (4m)\hat{k}$
   D. $(8m)\hat{i} + (12m)\hat{j} - (3m)\hat{k}$
2. A ball is thrown at an angle of 37° to the horizontal. What happens to the mag vertical acceleration during the total time interval that the ball is in the air?
   A. Acceleration decreases, then increases
   B. Acceleration d
   D. Acceleration s
   then decreases

3. Which of the following statement is **NOT true**?
   A. When acceleration is constant, the instantaneous and average acceleration are equal.
   B. When the velocity and acceleration have different sign, the speed of the object increases.
   C. Free fall is the motion of an object only to the influence of gravity.
   D. Instantaneous velocity is the average velocity measured over an infinitesimally small time.
4. Shortest distance between two points which also has direction and magnitude is termed as
   A. Position B. Velocity C. Displacement D. Distance
5. One of the following is very long-range and non-contact, but relatively weak fundamental force
   A. Electromagnetic force C. Strong nuclear force
   B. Gravitational force D. Weak nuclear force
6. Using a metric ruler with 1 mm divisions, you find the sides of a rectangular piece of plywood are 3.7 cm and 4.85 cm. You calculate that the area is 17.945 cm^2. The correct number of significant figures the result should be expressed as
   A. 17.95 cm^2 B. 17.945 cm^2 C. 18 cm^2 D. 17.9 cm^2
7. Which one of the following is wrong about work in physics?
   A. Work is a scalar - it has magnitude but no direction C. Work has units: Newton Metre = Joule (J)
   B. Work has dimensions: $M(LT^{-2})L = ML^2T^{-2}$ D. Work is always either zero or positive

Part V:- Workout questions (write each step clearly and neatly). (8 points total)

1. A particle moves along the x-axis according to $x(t) = 10t^2 - 2t^3$ m . (a) What is the instantaneous velocity and acceleration at t = 2 s and t = 3 s? (b) What is the average speed, velocity and acceleration between t = 2 s and t = 3 s? **(1 point)**
2. A projectile is fired in such a way that its horizontal range is equal to three times its maximum height. What is the angle of projection? **(1 point)**
3. Find a unit vector in the direction of the resultant of vectors. **(2 points)**
   $\vec{A} = 2\hat{i} - 3\hat{j} + 1\hat{k}$, $\vec{B} = \hat{i} + \hat{j} + 2\hat{k}$, $\vec{C} = 3\hat{i} - 2\hat{j} + 3\hat{k}$
4. As shown in figure below, a block which slides down a frictionless plane have an inclination of $\theta = 15^0$. The block starts from rest at the top and the length of the incline is 2.00 m. **(2 points)**
   a. Draw a free-body diagram
   b. Find the acceleration of the block
   c. Its speed when it reaches the bottom of the incline



5. Two objects of mass m_1 and m_2, with $m_2 > m_1$, are connected by a light inextensible cord and hung over a frictionless pulley, as shown in the figure below. Both cord and pulley have negligible mass. Find the magnitude of the acceleration of the system and the tension in the cord. **(2 points)**



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AMU, CSSH, DoCEES,

Name_____Id.N°_____Sec._____Stream_____

Part I: Write true if the statement is correct and false if it's incorrect(=6pts)

1. An argument must have more than one premise.
2. A deductive argument is always invalid if it has true premise and false conclusion.
3. The existence of indicator words with in a passage guarantees existence of an argument.
4. In logic the statements, which are claimed to provide logical reasons are called premises.
5. Non statements can be used to construct an argument.
6. Depending on the truth value of its statements, a valid argument can be sound or unsound.

Part II: Choose the best answer and put the letter of your choice on the space provided(=15pts)

1. Which one of the following alternatives makes an argument cogent?
   A. If the argument inductive, weak and has true premises.
   B. If The argument inductive, strong and has false premise.
   C. If the argument is inductive, weak and has false premise.
   D. If The argument is inductive, strong and has true premises
   E. 'A' & 'D'
2. The argument "***For the last ten years people have been listening to Teddy Afro's music and found it interesting. Probably, people will listen to it a year from now.***" is categorized under _____?
   A. Deductive, argument of definition
   B. Inductive, argument from authority
   C. Inductive, argument of analogy
   D. Inductive, based on prediction
   E. None of the above
3. An argument ***"95% of all examined fish from the Abaya Lake contained dangerous levels of mercury. This fish came from the Abaya Lake. Therefore, this fish probably contains dangerous levels of mercury."*** is _____?
   A. Valid Deductive argument
   B. Weak inductive argument
   C. Invalid deductive argument
   D. Strong Inductive argument
   E. None of the above
4. A Deductively valid argument may have all of the following combinations of truth values **except**?
   A. True premises and True conclusion.
   B. False premises and True conclusion
   C. False premises and false conclusion
   D. True premises and false conclusion
   E. All of the above
5. The expression "***I think Buna fc is the best football club in Ethiopian premier league***" is _?
   A. Passage of report
   B. Statement of belief
   C. Passage of Warning
   D. Passage of advice
   E. None of the above
6. Which one of the following is a statement?
   A. What is the meaning of logic?
   B. Metaphysics studies nature of reality
   C. Can you open the window, please?
   D. Wow, what a weekend
   E. None of the above
7. ***Teddy and his brother Kifle are alike in many ways. They both like fashion, music and sport. Teddy likes a movie. It must be the case that Kifle also likes a movie.*** This argument can be _____?
   A. Argument of Prediction
   B. Argument of Analogy
   C. Argument of Causal inferences
   D. Argument of Sign
   E. Inductive generalization

Arba Minch University
Studies
and Humanities

Mid- Exam: Critical Thinking (30%), Time Allotted:1hr; T. Group:2021 Freshman Students; E.Date:14/12/2013

AMU, CSSH, DoCEES,

Name_____Id.N°_____Sec._____Stream_____

8. Either classical culture originated in Greece, or it originated in Egypt. Classical culture did not originate in Egypt. Therefore, classical culture originated in Greece. This argument is?
   A. Hypothetical syllogism
   B. Disjunctive syllogism
   C. Categorical syllogism
   D. Argument based on analogy
   E. Argument based on authority

9. '***The government of Ethiopia has been adopting the system of decentralization. This implies that, the Ethiopian government recognizes greater level of local autonomy.***' This argument is____?
   A. Argument based on definition
   B. Argument based mathematics
   C. Arguments based on syllogism
   D. Argument based on prediction
   E. Argument based on sign

10. Which of the following is not a method used to identify deductive arguments?
   A. Special indicator words
   B. inferential link between the premise and a conclusion
   C. Form of argumentation the arguer uses
   D. All of above
   E. None of the above

Part III: short answer item

1. Determine Whether the Following Arguments are Deductive, Inductive, Valid, Invalid, Strong, Weak, Sound, Unsound, Cogent or Uncogent(=**6pts**)

Argument: ***All kangaroos are animals that live in the sea. Some dogs are kangaroos. Therefore, some dogs are animals that live in the sea.***

a) Type of Argument: _____
b) Validity/Strength: _____
c) Soundness/ Cogency: _____

Argument: ***All human beings are mortal. All Ethiopians are human beings. Therefore, all Ethiopians are mortal.***

a) Type of Argument: _____
b) Validity/Strength: _____
c) Soundness/ Cogency: _____

2. Identify The Premises, Conclusion and Indicator Word used in This Argument **(3pts.)**

Argument: ***Helen receives her payment at the end of the month. All Arba Minch University non-café students receive their payment at the end of the month. Helen is Arba Minch University non-café student.***

a) Premises: _____
_____
_____
b) Conclusion _____
_____
c) Indicator word _____

ACC Type Writers
Arba Minch University

AMU, CSSH, DCES, LoCT-Mid Exam for Freshman Students. Weight 30%, Time Allowed 1:00 hr. | 2015 Sem.I

Name [redacted] Id [redacted] Section 02

Part I. **Write "True" if the statement is correct or "False" if the statement is incorrect in the answer sheet space (0.5 pt each)**

1. Every argument that is valid and has a true conclusion is sound F
2. An inductively valid argument with all true premises is sound argument F
3. Validity is the correctness of the arguments reasoning or the truth of inductive arguments inferential claim F
4. Unlike deductive argument, inductive argument necessarily proceeds from particular to general F
5. All sentences are statements and can be either the premise or conclusion of an argument F
6. A sound argument is a strong argument that has all true premises and by default a true conclusion F
7. All invalid deductive arguments are unsound, and all weak inductive arguments are Cogent F
8. Any argument in which the conclusion likely follows from its premises is an inductive argument T
9. If all evidences placed in the premises really do support the conclusion, then the argument is a good argument T
10. In deductive argument, the content of the conclusion lies entirely within the domain or the Content of the premises T

Part II. Match to column "A" from the correct answers under column "B" and put your answer in the answer sheet space (1pt each)

"A"	"B"
1. Valid argument F	A. The conclusion follows probably from the premises
2. Invalid Argument D	B. Either valid with one or more false premises, or invalid, or both
3. Sound argument C	C. Valid argument with all true premises.
4. Un-cogent argument J	D. Actually true premises and an actually false conclusion
5. Unsound argument B	E. Questions about truth and falsity of premises
6. Factual claim E	F. The conclusion necessarily followed from the premises
7. Strong argument A	G. Strong argument and has all true premises
8. Cogent argument G	H. Expresses a reasoning process
9. Inferential claim H	I. The inductive analogue of a sound deductive argument –
	J. Either strong with one or more false premises, or weak, or both.



Part III: Multiple Choice Items: Choose the correct answer from the given alternatives ... put the letter of your choice in the answer sheet space (1pt each)

1. The connection between premises and conclusion in inductive arguments are?
   A. A matter of necessity C. A matter of probability
   B. A matter of possibility D. A matter of certainty E. All of the above
2. "*A shoeshine boy is an industrious person. Therefore, he is a hard worker*". The name of this argument is?
   A. Argument from definition C. Argument from analogy E. None
   B. Argument based on mathematics D. Inductive generalization
3. For inductive argument to be Cogent;
   A. It is necessary that the conclusion be true and premises be false
   B. It is necessary that all premises to be true.
   C. It is not necessary that either the premise or the conclusion to be true.
   D. Cogent inductive argument that is either strong argument with one or more false premises or weak.
4. Among the following, which one is the advantage of studying logic?
   A. Helps us to construct misleading arguments
   B. Is intended to intensify the common errors of logic.
   C. Enhances the capacity of human beings' creativity.
   D. Is aimed to deform the reasoning process at large.
   E. None of the above
5. "*All birds are politicians. All dogs are politicians. Hence, all birds are dogs*". This argument is?
   A. Inductive, strong & cogent C. Deductive, invalid & Unsound
   B. Inductive, weak & uncogent D. Deductive, valid & Sound

6. All the following are logically **incorrect** usage of terms in evaluating deductive arguments, **except**?
   A. Applying the word valid or invalid C. Saying Cogent or uncogent
   B. Saying true or false D. Using words such as plausible or implausible

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College of Social Science and Humanities

...LOCT-Mid Exam for Freshman Students. Weigh... | Se...
30%, Time Allowed 1:00 hr.

Part IV: Short Answer Items: Show or Write the "form of argument", "type of argument", "validity/strength" and "soundness/cogency" of each argument respectively on the given space below. (10pts)

1. **Given the argument** "*All Alcoholic drinks are beverages. Coca Cola is an alcoholic drink. Thus, Coca Cola is a beverage*".
   a) Show Argument Form Deductive
   b) Validity/strength Valid
   c) Soundness/cogency Unsound
2. **Given the argument** "*If Meles Zenawi is committed suicide then Meles Zenawi is dead. Meles Zenawi did not commit suicide. Therefore, Meles Z enawi is not dead.*"
   a) Show Argument Form Deductive
   b) Validity/strength Valid
   c) Soundness/cogency Sound
3. **Given the argument** "*As per the 1995 FDRE constitution, all the previously created regional states in Ethiopia were established based on the settlement pattern, identity and consent of the people. Hence, the next regional state will be established on the basis of the settlement pattern, identity and consent of the people*".
   a) Type of argument Inductive
   b) Validity/strength Strong
   c) Soundness/cogency Cogent

8

4. **Given the argument** "*Chalitu receives her payment at the end of the month. All Arba Minch University non-café students receive their payment at the end of the month. Chalitu is Arba Minch University non-café student*". (**Identify the following**:
   a) Premises: All Arba Minch University students receive their payment at the end + Chalitu is Arba Minch University non-cafe student
   b) Conclusion Chalitu receives her payment at the end of the month.
   c) Indicator word No indicator word

Ψ

Mid Exam

General Psychology (psyc-1011)
Time given: **45min**

Academic Year: 2021
Date: Aug 18, 2021

Switch off your **mobile phone** and place it **faced down on the floor.**

Name: [redacted] IDNo. [redacted] Instructor's Name _____
Sec. AMIT-A

PART ONE: TRUE OR FALSE
Instruction: Read the following statement carefully and write **true** if the statement is correct and **false** if the statement is incorrect on the answer sheet provided at the end.

1. Functionalism assumes that conscious experiences should be the object of psychology.
2. In an experiment, the experimental group is exposed to all aspects of the treatment except the independent variable.
3. The ability of our mind to combine meaningless sensations to form meaningful patterns is known as depth perception.
4. The lowest point of stimulation below which it is hard for a person to detect the presence of stimulus is absolute threshold.
5. Unlike educational psychology, school psychology focuses on administration of academic programs.
6. Law of continuation states that we have a tendency to close gaps and perceive meaningful shapes.

PART TWO: MULTIPLE CHOICES
Instruction: Choose the correct answer and **write** it on the answer sheet provided at the end.

1. Which of the following schools of thought in psychology associated human mental experience to an iceberg?
   A. Behaviorism
   B. Psychoanalysis
   C. Humanistic psychology
   D. Structuralism
2. _____ is the approach to psychology that arose from the belief that the study of the mind and consciousness was not scientific.
   A. Structuralism
   B. Humanistic psychology
   C. Behaviorism
   D. Psychoanalysis
3. A researcher who wants to establish evidence for a cause-effect relationship between variables should use _____.
   A. experimental method
   B. naturalistic observation
   C. correlation
   D. survey method

4. _____ indicates a visual cue in which nearer objects look rough in structure where as distant objects look dense.
   A. Interposition
   B. Aerial perspective
   C. Linear perspective
   D. Texture gradient
5. A tendency to perceive objects as being remaining the same despite apparent changes in their features is:
   A. size constancy
   B. shape constancy
   C. perceptual constancy
   D. brightness constancy
6. Before psychology became an independent discipline, matters of the soul were discussed under_____.
   A. Science B. Physiology C. Philosophy D. Physics
7. In psychology, scientific knowledge of human behavior is _____.
   A. empirical B. intuitive C. permanent D. subjective
8. Critics have argued that introspection as a method of investigation is too_____.
   A. scientific B. subjective C. reliable D. objective
9. The idea that the ways humans think affect their actions and feelings expresses the view of_____ perspective
   A. humanistic B. psychoanalysis C. behavioral D. cognitive
10. Which research method in psychology is more suitable to study rare behaviors or problems?
   A. Survey
   B. Case study
   C. Experimental
   D. Correlational
11. Genetic heritage plays great role in determining behavior in _____ perspective?
   A. psychoanalysis B. cognitive C. biological D. behavioral
12. The early school of psychology founded by William James focused on_____.
   A. mental functions
   B. mental structures
   C. whole mind
   D. unconscious mind
13. _____ involves the transformation of physical stimulation into neural activities.
   A. Absolute threshold
   B. Transduction
   C. Sensory threshold
   D. Detection
14. Which term is most descriptive of sensation?
   A. Interpretation B. Recognition C. Attention D. Stimulation
15. Perceptual set as one factor is evidence that our perception is:
   A. at least partly dependent on seeing the world.
   B. minimally dependent on our experience with the world.
   C. at least partly dependent on expectations about the world.
   D. minimally dependent on the stimulation of the retina.
16. "Perceiving a tree at night to be a man" is an example of:
   A. perceptual constancy
   B. perceptual attention
   C. perceptual illusion
   D. perceptual organization
17. A procedure aimed at analyzing conscious mental experiences inward is:
   A. Transduction
   B. Introspection
   C. Questionnaire
   D. Stimulation

18. Which one of the following is **true** about humanistic psychology?
    A. An individual has unique potential toward self-actualization.
    B. An individual is a passive responder to stimuli
    C. An individual's behavior is determined by external forces.
    D. An individual's behavior is influenced by early childhood experiences.
19. Mr. X studies what makes adolescents conform to the behaviors and opinions of other adolescents. Which area of psychology does her research best represent?
    A. Developmental psychology
    B. Cultural psychology
    C. Social psychology
    D. Personality Psychology
20. One of the following statements **does not** represent the assumption of behaviorism?
    A. Learning is a base to shape human behavior.
    B. Mental processes are important to understand human behavior.
    C. Experience has great influence on humans than heredity.
    D. Human behavior can be recorded and verified
21. In an experiment, someone investigates how sleep affects anxiety. The number of hours the participants sleep is_____ variable.
    A. Independent B. Control C. Dependent D. Experimental
22. A psychologist using the method of naturalistic observation would:
    A. carefully design controlled situations to observe behavior.
    B. rely on observations of subjects' responses to questionnaires.
    C. observe behavior as it happens in the real world.
    D. make records of what the observer wants to happen.
23. Which of the following coefficients of correlation indicates the strongest relationship between two sets of variables?
    A. -0.96 B. +0.92 C. 0.00 D. +1.30

PART THREE: FILL IN THE BLANKS
Instruction: FULL mark will be given for precise and correct answer and any contradicting word or phrase results in 0 score.

1. One limitation with Survey method of research is that they often do not generalize to population other than the one that is the subject of the study.
2. Orderly and systematic procedure scientists follow in acquiring knowledge is Science
3. ESP is perception occurring without sensation.
4. Among other factors affecting perception, Set/Expectance and motive/need are classified as factors internal to the perceiver.

Answer Sheet

True/False Items	1. F	2. F	3. F	4. T	5. F	6. F		
						B		
Multiple Choice	1. B	2. A	3. A	4. B	5. B	6. A	7. A	8. D
	9. A	10. C	11. D	12. A	13. B	14. D	15. B	16. C
	17. B	18. A	19. C	20. D	21. A	22. C	23. B	?

Survey Survey Science

Date of Exam: [illegible] Total mark: 30%

33. Name _____ ID No. _____ sec ____ regular ☐

33. GENERAL INSTRUCTIONS

The exam consisting of 16 questions having 4- True/False, 4- Short answer, 5-choice, and 3-workout items into TWO pages.

- Before You are starting to do please fill all the above information correctly.
- **Write your answer on the answer sheet only, and don't mark on the question paper.**
- Students should maintain perfect silence in the examination hall.
- Students should not bring any electronic materials (mobile, laptop,...) to the exam hall.
- Write your name and ID card No. on each answer book and additional sheets if any.
- Nobody should leave the hall with out handling the answer book.
- **Cheating in the examination in any form is a serious offense.**

Part I (True/False) (1 point each) (Say 'True' if the statement given is correct else 'False

1. All arguments with true conclusions are valid. *faure*
2. If $a < b$, then $a.c < b.c$, *for all* $a,\ b,\ c \in \mathbb{N}$. *True*
3. If $z_1,\ z_2$ are complex numbers, then $Arg(z_1 \times z_2) = Arg\ z_1 \times Arg\ z_2$. *True*
4. The compound propositions $\neg(p \Rightarrow q)$ and $p \wedge \neg q$ are logically equivalent.

Part II: Short Answer (1.5 point each) (Answer the following questions:)

1. Given two complex numbers $z_1 = 3 + 3i$ and $z_2 = 1 + i$, then $\overline{z_1}.z_2 =$ ____.
2. Given two sets $A = \{2,\ 3,\ 4,\ 5, a,\ b\}$ and $B = \{x, y, z, 2\ 4,\ a,\ b\}$, then $A \triangle B =$ _____.
3. Suppose $p,\ q$ are true, and $r,\ s$ are false, then the truth value of $\neg(p \vee q) \Leftrightarrow (r \Rightarrow s) =$ _____.
4. The fraction form of the rational number $d = 1.2\overline{01}$ is ____.

$\neg(p \Rightarrow q)$

$(T \Rightarrow F)$

T

33. II: (2 point each) (Choose the best answer for the following questions:

1. Let [illegible] the set of even natural numbers less than or equal to 15. Which of the following is true.

   A. $\{2, 6\} \in A$
   B. $\emptyset \in A$
   C. $0 \in A$
   D. $\{2, 4\} \subset A$

2. Let $P(x, y)$: $xy = 0$, $x, y \in \mathbb{Z}$. Which of the following is false.

   A. $(\forall x)(\forall y)P(x, y)$
   B. $(\exists x)(\exists y)P(x, y)$
   C. $(\forall x)(\exists y)P(x, y)$
   D. $(\exists x)(\forall y)P(x, y)$

3. Which of the following sentence is not a proposition?

   A. The sum of two prime numbers is even.
   B. Come to class!
   C. The sun is shining.
   D. $3 + 4 = 7$.

4. Which of the following statement is true?

   A. The sum of any two irrational numbers is irrational.
   B. The product of any two rational numbers is irrational.
   C. The product of any two rational numbers is rational.
   D. The sum of any two irrational numbers is rational.

5. The GCF and LCM of 80 and 120 is ___ and ___ respectively.

   A. 40, 240
   B. 120, 80
   C. 240, 40
   D. 80, 120

Part IV: Workout: (Show all necessary steps neatly and clearly.)

1. (3 point) Prove that $\frac{1}{1\times2}+\frac{1}{2\times3}+\frac{1}{3\times4}+\ldots+\frac{1}{n(n+1)} = \frac{n}{n+1}$, $n \geq 1$ using principle of mathematical induction.

2. (4 point) Consider the argument
   " If the professor offers chocolate for an answer, then you answer the professor's question.
   The professor offers chocolate for answer. Therefore, you answer the professor's question."
   Identify all premises, conclusion and verify its the validity using truth table.

3. (3 point) Find all cubic roots of $z = -i$.

