

Course: B. Tech [Lateral]

Time :.....

Total Marks:

Section – A [ENGLISH]

1. They usually spend their holidays in _____ mountains.
a. no article b. a
c. an d. the
2. I can't live on _____ 500 dollars a month.
a. no article b. a c. an d. the
3. We _____ in Minsk since 1975.
a. had been living b. has been living
c. have been living d. are living
4. By next December, I ____ for this company for 5 years.
a. have been working b. will had worked
c. will have worked. d. will had been working
5. Do not take any notice _____ him.
a. about b. on
c. of d. in

Section – B [Physics]

1. Which of these rays have the highest ionising power?
(a) Beta (b) Alpha
(c) Gamma (d) All have the same
2. Which of the following is the mirror formula?
(a) $v + u = f$ (b) $1/v + 1/u = 1/f$
(c) $1/v + 1/u = f$ (d) None of the above
3. Which of the following principles is used to define the First law of Thermodynamics?
(a) Conservation of mass (b) Conservation of energy
(c) Conservation of momentum (d) Conservation of charge
4. How many joules are there in one calorie?
(a) 3.186 J (b) 4.186 J
(c) 5.186 J (d) 6.186 J

5. What is the S.I. unit of power of a lens?

- (a) Metre
(c) Diopetre

- (b) Watt
(d) Second

Section – C [Chemistry]

1. The total number of periods in the periodic table is

- (a) 6
(c) 8

- (b) 7
(d) 9

2. $P_1V_1/T_1 = P_2V_2/T_2$

- (a) Combined gas law
(c) Boyle's law

- (b) Charle's law
(d) None

3. Bronsted-Lowery theory, an acid is a

- (a) Proton acceptor
(c) Proton donor

- (b) Electron acceptor
(d) Electron donor

4. Which one of the following is used as common salt

- (a) NaCl
(c) NaHCO_3

- (b) NaOH
(d) Na_2CO_3

5. The oxidation number of O in CaO_2 is

- (a) +2
(c) -1

- (b) -2
(d) 0

Section – D [Math]

1. If two positive integers a and b are written as $a = p^3q^2$ and $b = pq^3$; p, q are prime numbers, then HCF (a, b) is:

- (A) pq (B) pq^2 (C) p^3q^3 (D) p^2q^2

2. The largest number which divides 70 and 125, leaving remainders 5 and 8, respectively, is

- (A) 13 (B) 65 (C) 875 (D) 1750

3. A rectangular field has an area of 3 sq. units. The length is one more than twice the breadth 'x'. Frame an equation to represent this.

- A) $x^2 - 2x + 6 = 0$ B) $x^2 - 2x + 3 = 0$ C) $2x^2 + x - 3 = 0$ D) $2x^2 + x - 6 = 0$

4. The square of $(5x + 1)$ is equal to 16. What is x?

- A) $x = 4, \frac{1}{4}$ B) $x = -1, \frac{3}{5}$ C) $x = 1, \frac{3}{2}$ D) $x = -1, \frac{4}{5}$

5. If the third and the ninth terms of an AP are 4 and -8 respectively, which term of this AP is zero?

- A) 5th B) 4th C) 3rd D) 6th

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Section – D [Science]

1. The nucleus of an atom consists of

- | | |
|----------------------------|---------------------------|
| (a) Electrons and neutrons | (b) Electrons and protons |
| (c) Protons and neutrons | (d) All of the above |

2. The number of moles of solute present in 1 kg of a solvent is called its

- | | |
|---------------|---------------|
| (a) Molality | (b) Molarity |
| (c) Normality | (d) Formality |

3. The most electronegative element among the following is

- | | |
|--------------|-------------|
| (a) Sodium | (b) Bromine |
| (c) Fluorine | (d) Oxygen |

4. Ohm is a unit of measuring

- | | |
|----------------|-----------------------|
| (a) Resistance | (b) Voltage |
| (c) Current | (d) None of the above |

5. Which of the following pairs represent two scalar quantities?

- | | |
|-------------------------|-----------------------------------|
| (a) Mass, Acceleration | (b) Distance, Speed |
| (c) Temperature, Torque | (d) Gravitational Intensity, Work |

ARKA JAIN University – Jharkhand

AJU Common Entrance Test [AJU CET 2021] - **SAMPLE QUESTION PAPER**

Course: Polytechnic

Time :.....

Total Marks :

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Section – B Logical Reasoning]

1. Sita told Gita, "The girl I met yesterday at the beach was the youngest brother of the brother-in-law of my friend's mother." How is the girl related to Sita's friend?
a. Cousin b. sister
c. Friend d. Niece
2. Based on the given statement and few conclusions, choose the right statement which gives the correct conclusions.
Statements:
Some apples are oranges.
All oranges are grapes.
Some grapes are lichis.
No pine is orang

Conclusions:
I. All pines being grapes is a possibility
II. All apples being pines is a possibility
III. No orange is lichi.
a. Only I & III follow b. Only I follow
c. Only II follows d. None of the above

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ARKA JAIN University – Jharkhand

AJU Common Entrance Test [AJU CET 2021] - **SAMPLE QUESTION PAPER**

Course: **MBA**

Time :.....

Total Marks :

Section – A [ENGLISH]

Choose the word/group of words which is most **OPPOSITE** in meaning of the word printed in **bold** as used in the passage. [Choose the correct option i. e (a , b, c, d)]

1. Enormous :

- | | |
|------------------|---------------|
| a. Gignatic | b. Huge |
| c. Insignificant | d. Meticulous |

2. **Transparency:**

- | | |
|-------------|----------------|
| a. Clarity | b. Fairness |
| c. Dullness | d. Concealment |

3. **IGNITE:**

- | | |
|-------------|----------------|
| a. Clarity | b. Fairness |
| c. Dullness | d. Concealment |

In these questions, choose the word from the alternatives (a), (b), (c) and (d) that is similar in meaning to the word given in capital letters.

4. **GIST:**

- | | |
|-----------------|--------------|
| a. Contribution | b. Substance |
| c. Prestige | d. Accessory |

5. **SOLICITOUS:**

- | | |
|----------------|------------|
| a. Nonchalant | b. Firm |
| c. Reverential | d. Worried |

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II. All apples being pines is a possibility

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|------------------------|----------------------|
| a. Only I & III follow | b. Only I follow |
| c. Only II follows | d. None of the above |

3. Eight friends A, B, C, D, E, F, G and H are sitting in circular arrangements. E is fourth to the right of B. A is to the third right of E. D is between A and F. C is fourth to the left of A. H is between G and C. Who is seated immediately next to A ?

- | | |
|------|------|
| a. G | b. C |
| c. B | d. H |

4. Among the six persons A,B,C,D,E and F each have different weight.C is lighter than only A. D is heavier than 3 persons, E is lighter than F. The second heaviest person is of 74 kg and the second lightest person is of 41 kg. E is not the lightest. After arranging the person in ascending order of their weight find the person who comes immediately after E.

- | | |
|------|------|
| a. B | b. D |
| c. C | d. F |

5. Study the following information carefully and answer the questions given below-

A + B means A is brother of B

A - B means A is father of B

A * B means A is uncle of B

A / B means A is sister of B

From the given expression P - Q + R / S which of the following is true?

- | | |
|------------------------|----------------------|
| a. P is the aunt of S | b. P is the son of S |
| c. P is the uncle of S | d. none of the above |

Section – C [Quantitative Aptitude]

1. The marked price of an article for sale is 20% of its cost price. How much percent does the dealer gain by allowing a discount of 15%?
a) 5% b) 7% c) 10% d) 6.25%
2. A shopkeeper allows a discount of 22.5% on the marked price of a certain article and makes a profit of 40%. If the article costs the shopkeeper Rs.155, then the marked price of the article will be:
a) 380 b) 280 c) 480 d) 180
3. The Simple Interest on Rs.5000 in 4 years @ y% p.a. equals the Simple Interest on Rs.8000 @ 10% p.a. in 2 years. Find the value of y.
a) 4% b) 16% c) 32% d) 8%
4. If x distance is covered at speed and half of this distance is covered in double the time. Then find the ratio of the two speeds.
a) 2 : 1 b) 4 : 1 c) 3 : 1 d) 1 : 1
5. If a bus travels at 20 km/hr, it reaches the destination late by 11 minutes. But if it runs at 25 km/hr, it reaches late only by 5 minutes. Find the exact time in which the bus will complete the journey without getting late?
a) 19 minutes b) 20 minutes c) 16 minutes d) 21 minutes

ARKA JAIN University - Jharkhand

AJU Common Entrance Test [AJU CET 2021] - SAMPLE QUESTION PAPER

Course: B.Pharm

Time:

Total Marks:

Section – A [Math's]

- For some integer n , the odd integer is represented in the form of:
 - n
 - $n + 1$
 - $2n + 1$
 - $2n$
- HCF of 26 and 91 is:
 - 15
 - 13
 - 19
 - 11
- Area of an equilateral triangle with side length a is equal to:
 - $\sqrt{3}/2a$
 - $\sqrt{3}/2a^2$
 - $\sqrt{3}/4 a^2$
 - $\sqrt{3}/4 a$
- In ΔABC , right-angled at B, $AB = 24$ cm, $BC = 7$ cm. The value of $\tan C$ is:
 - $12/7$
 - $24/7$
 - $20/7$
 - $7/24$
- $1 - \cos^2 A$ is equal to:
 - $\sin^2 A$
 - $\tan^2 A$
 - $1 - \sin^2 A$
 - $\sec^2 A$

Section – B [Biology]

- The main difference between Gram positive and Gram negative bacteria is
 - Cell membrane
 - Cell wall
 - Ribosome
 - Mitochondria
- Which of the following is related to Humoral Immunity?
 - T-lymphocyte
 - B- lymphocyte
 - I-lymphocyte
 - P-lymphocyte

3. Fertilization occurs in

- (a) Uterus
- (b) Ureter
- (c) Vagina
- (d) Fallopian tube

4. The lactase hydrolyzes lactose into

- (a) Glucose
- (b) Glucose and Galactose
- (c) Fructose
- (d) Glucose and fructose

5. The name of the pace maker of the heart is

- (a) Lymph node
- (b) Bundle of his
- (c) Purkingefibre
- (d) S.A. node

Section – C [PHYSICS]

1. Electrical conductivity increases with the increase of temperature of a substance, then it is a:

- a) Conductor
- b) Semiconductor
- c) Insulator
- d) Carborator

2. Young's modulus is the property of

- a) Gas only
- b) Both Solid and Liquid
- c) Liquid only
- d) Solid only

3. Energy possessed by a body in motion is called

- a) Kinetic Energy
- b) Potential Energy
- c) Both A and B
- d) None of these

4. Image formed by plane mirror is

- a) Real and erect
- b) Real and inverted
- c) Virtual and erect
- d) Virtual and inverted

5. concave mirror gives real, inverted and same size image if the object is placed

- a) At F
- b) At infinity
- c) At C
- d) Beyond C

Section – D [Chemistry]

1. Which one is not metal:
 - A. Sulphur
 - B. Sugar
 - C. Nitrogen
 - D. All.

2. Which one is pure element:
 - A. Glass
 - B. Cement
 - C. Sodium
 - D. None of these

3. In isotopes the number of neutrons are:
 - A. Same
 - B. Different
 - C. Both
 - D. None

4. The heaviest naturally occurring element is:
 - A. Thorium
 - B. Uranium
 - C. Polonium
 - D. Mercury

5. The pH value of acidic solution is:
 - A. <7
 - B. >7
 - C. 7
 - D. None of the above

ARKA JAIN University - Jharkhand

AJU Common Entrance Test [AJU CET 2021] - **SAMPLE QUESTION PAPER**

Course: B.Pharm Lateral

Time:

Total Marks:

1. Capsule is made up of
 - a. Gelatin
 - b. Glycerine
 - c. Sorbitol
 - d. All
2. The substance that kills bacteria is called
 - a. Bacteriostatic
 - b. Bactericide
 - c. Disinfectant
 - d. Germicide
3. Antacids are what substances which are used to neutralize the excess acid released in the stomach.
 - a. Acidic
 - b. Alkaline
 - c. Neutral
 - d. None
4. Which is not a fat soluble vitamin?
 - a. Vitamin A
 - b. Vitamin D
 - c. Vitamin C
 - d. Vitamin K
5. What are the contents of First aid kit?
 - a. Cotton wool
 - b. Adhesive tape
 - c. Crepe bandage
 - d. All of the above
6. Power house of the cell
 - a. Ribosome
 - b. Mitochondria
 - c. Cell membrane
 - d. Endoplasmic reticulum
7. The longest and heaviest bone of the body
 - a. Femur
 - b. Fibula
 - c. Tibia
 - d. Ilium

8. Goitre is caused by the deficiency of
 - a. Fluoride
 - b. Chloride
 - c. Iodine
 - d. Sulphur
9. Pain of joints is due to the deposition of
 - a. Ursolic acid
 - b. Uric acid
 - c. Ursodeoxycholic acid
 - d. None of the above
10. Crow fig is the synonyms of
 - a. Opium
 - b. Cannabis
 - c. Nux vomica
 - d. None of the above
11. BID in pharmaceutical terms refers to which of the the following?
 - a. Twice a day
 - b. Thrice a day
 - c. Every other day
 - d. Alternate day
12. Which of the following is not a five membered ring?
 - a. Pyridine
 - b. Pyrrole
 - c. Furan
 - d. Thiopenne
13. The study of absorption, distribution, metabolism and excretion of drug is known as
 - a. Clinical pharmacology
 - b. Pharmacokinetics
 - c. Pharmacodynamics
 - d. Pharmacotherapeutics
14. What is the meaning of "itis"
 - a. Destruction
 - b. Restriction
 - c. Infection
 - d. Inflammation
15. Factors affecting site of selection of drug store
 - a. Business locality
 - b. Flow of traffic
 - c. Locality
 - d. All of the above

16. Practical training for D.Pharmacy is of?

- a. 90 days
- b. 60 days
- c. 45 days
- d. 120 days

17. Animal used for pyrogen testing

- a. Rabbit
- b. Rat
- c. Frog
- d. Mice

18. Tablet is

- a. Solid dosage form
- b. Unit dosage form
- c. Compressed dosage form
- d. All of the above

19. Biphasic dosage form include

- a. Elixir
- b. Douches
- c. Tincture
- d. Emulsion

20. Causative agent of Typhoid fever

- a. Salmonella typhi
- b. Salmonella hyphi
- c. Corynebacterium influenza
- d. None of the above