## GOVT. EXAM QUESTION PAPER - SEPTEMBER-2020

TME. 2 Upo		D - OCTEMPE	
INE: 3 HRS	Barton Barton		MAX MARKS: 75
ii) Choose t	all the questions:	unswer from the give	$12 \times 1 = 12$ In four alternatives and er.
The eye defect 'Presbyopia' can be correct     a) Convex lens     b) Concave lens		cted by :	d) Bifocal lenses
The value of Avo a) $6.023 \times 10^{-23}$	gadro number is b) 6.024 x 10 <sup>24</sup>	/ mol. c) 6.023 x 10 <sup>23</sup>	d) 6.024 × 10 <sup>-24</sup>
<ul> <li>Identify the non-aqueous solution.</li> <li>a) Sodium chloride in water</li> <li>c) Copper sulphate in water</li> </ul>		b) Glucose in water d) Sulphur in carbon disulphide	
An electric heater flows through the	of resistance $5\Omega$ is conheater, find the amour	nected to an electric s it of heat produced in c) 45000 J	source. If a current of 6 A 5 minutes. d) 84000 J
$C_2H_5OH + 3O_2 \rightarrow 2CO_2 + 3H_2O$ is : a) Reduction of ethanol c) Oxidation of ethanoic acid		b) Combustion of ethanol d) Oxidation of ethanol	
Which is formed d a) Carbohydrate	uring anaerobic respira b) Ethyl Alcohol	tion ? c) Acetyl CoA	d) Pyruvate
Who is regarded as a) His-Atrio	s the "Father of Moder b) William Harvey	n Physiology" ? c) Karl Landsteine	r d) Edward C. Kendal
Node of Ranvier is n) muscles	found in b) axons	c) dendrites	d) cyton
is found abu ) Auxin	ndantly in liquid endo b) Cytokinin	sperm of coconut. c) Gibberellins	d) Ethylene
		es c) Knife	d) DNA ligases
Polyvinyl chlorid Cadmium Lead Chromium (1)-(i), (2)-(iii), (	de (i) Affects bra (ii) Affects the (iii) Asthmatic (iv) Neural da 3)-(iv), (4)-(ii)	e growth of reprodu bronchitis mage b) (1)-(ii), (2)-(i)	(3)-(iii), (4)-(iv)
	The eye defect is a) Convex lens  The value of Avoral 6.023 x 10 <sup>-23</sup> Identify the nonal Sodium chlorid c) Copper sulphate  An electric heater flows through the a) 48000 J  C <sub>2</sub> H <sub>5</sub> OH + 3O <sub>2</sub> → a) Reduction of etc) Oxidation of etc) Oxidation of etc) Oxidation of etc) Oxidation of etc) Which is formed dia) Carbohydrate  Who is regarded as a) His-Atrio  Node of Ranvier is b) muscles  is found abuth a) Auxin  e can cut the DNA Scissors  the following Polyvinyl chlorid Cadmium  Lead  Chromium  (1)-(i), (2)-(iii), (	ote: i) Answer all the questions: ii) Choose the most appropriate a write the option code and the office a) Convex lens b) Concave lens  The eye defect 'Presbyopia' can be correctly a) Convex lens b) Concave lens  The value of Avogadro number is a) 6.023 x 10 <sup>-23</sup> b) 6.024 x 10 <sup>24</sup> Identify the non-aqueous solution. a) Sodium chloride in water c) Copper sulphate in water  An electric heater of resistance 5Ω is conflows through the heater, find the amour a) 48000 J b) 54000 J  C <sub>2</sub> H <sub>5</sub> OH + 3O <sub>2</sub> → 2CO <sub>2</sub> + 3H <sub>2</sub> O is: a) Reduction of ethanol c) Oxidation of ethanol c) Oxidation of ethanol caid  Which is formed during anaerobic respirate a) Carbohydrate b) Ethyl Alcohol  Who is regarded as the "Father of Modern a) His-Atrio b) William Harvey  Node of Ranvier is found in b) muscles b) axons  is found abundantly in liquid endo a) Auxin b) Cytokinin  e can cut the DNA with the help of: Scissors b) Restriction enzyment of the following: Polyvinyl chloride (i) Affects brown of the following: Polyvinyl chloride (ii) Affects the cad (iii) Asthmatic Chromium (iv) Neural da (1)-(i), (2)-(iii), (3)-(iv), (4)-(ii)	ote: i) Answer all the questions: ii) Choose the most appropriate answer from the give write the option code and the corresponding answer a) Convex lens b) Concave lens c) Convex mirror The eye defect 'Presbyopia' can be corrected by: a) Convex lens b) Concave lens c) Convex mirror The value of Avogadro number is a) 6.023 x 10 <sup>-23</sup> b) 6.024 x 10 <sup>24</sup> c) 6.023 x 10 <sup>23</sup> Identify the non-aqueous solution. a) Sodium chloride in water b) Glucose in water c) Copper sulphate in water d) Sulphur in carbo An electric heater of resistance 5Ω is connected to an electric flows through the heater, find the amount of heat produced in a) 48000 J b) 54000 J c) 45000 J  C₂H₅OH + 3O₂ → 2CO₂ + 3H₂O is: a) Reduction of ethanol c) Oxidation of ethanol d) Oxidation of ethanol c) Oxidation of ethanol caid d) Oxidation of ethanol c) Oxidation of ethanol caid d) Oxidation of ethanol c) Oxidation of ethanol c) Ethyl Alcohol c) Acetyl CoA Who is regarded as the "Father of Modern Physiology"? a) His-Atrio b) William Harvey c) Karl Landsteine code of Ranvier is found in b) Cytokinin c) Gibberellins ecan cut the DNA with the help of: Scissors b) Restriction enzymes c) Knife can cut the following: Polyvinyl chloride (i) Affects brain development in Cadmium (ii) Affects the growth of reproduced in the cadmium (iii) Affects the growth of reproduced in the cadmium (iii) Asthmatic bronchitis

12) Find the correct pair.

a) Acrocentric

The centromere is found near the centre of the chromosome with two unequal arms

Submetacentric

The centromere is found on the proximal end. The centromere occurs in the centre of the

Metacentric

chromosome and forms two equal arms

Telocentric

The centromere is found at one end with a short arm and a long arm

#### PART-II

 $7 \times 2 = 14$ 

Note: Answer any seven questions. Question No.22 is compulsory.

13) Write short notes on gears.

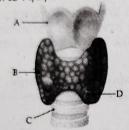
14) Mention two cases in which there is no Doppler effect in sound.

15) Define co-efficient of real expansion and mention its unit.

16) Write a reaction which is used for the identification of alcohol.

17) Name the three types of neurons and find its location.

18) Identify the parts A,B,C and D in the given figure.



19) How can you determine the age of fossils?

20) State the applications of DNA fingerprinting technique

21) What is "Stage" in Scratch editor?

22) A beam of light passing through a diverging lens of focal length 0.3 m appears to be focused at a distance 0.2 m behind the lens. Find the position of the object.

#### PART - III

Note: Answer any seven questions. Question No.32 is compulsory.

 $7 \times 4 = 28$ 

23) Define rocket propulsion.

24) What are the uses of Simple microscope?

25) a) What do you understand by the term 'Ultrasonic waves'?

b) What are the medical applications of echo?

26) What are the methods of preventing Corrosion?

27) Differentiate soaps and detergents."

28) Differentiate between Monocot root and Dicot root.

29) Draw the external structure of human heart and label the parts.

30) Define Ethnobotany and write its importance.

31) Explain about Gene Therapy.

32) a) A solution was prepared by dissolving 25g of sugar in 100g of water. Calculate the mass percentage of solute.

True or false (If false give the correct statement)

In our daily life, solution of syrups, mouth wash, antiseptic solution, household disinfectants etc., the concentration of ingredients of solution is

In Oinments, antacids, soaps etc., the concentration of solution is expressed as v/v.

### PART - IV

Note: Answer all the questions. Draw diagrams wherever necessary.

 $3 \times 7 = 21$ 

Explain about domestic electric circuits. 33) a)

- Compare the properties of alpha, beta and gamma radiations. b)
- Give the salient features of "Modern atomic theory". 34) a)

Write any two applications of "Avogadro's Law". ii)

(OR)

- Explain single displacement reaction with examples. i) b)
  - Explain the types of double displacement reactions with examples. (ii
- Why are the rings of cartilage found in trachea of rabbit? i) 35) a)

Write a note on UTI. ii)

(OR)

- What is the biological significance of DNA? b)
  - What precautions can be taken for preventing heart diseases? i) ii)
  - Mention any two approaches for protection of an Abused child. iii)

# ALL THE BEST