# APRJC-2012(BiPC) Question Paper 

GENERAL ENGLISH

Q. Booklet D
(1-5) Read the following passage. Answer the five questions given below.
Have you ever heard about an animal called the lemming? You'd never see a lemming in India because it lives only in very cold parts of the world. You would find lemmings in places like northern Europe, for example, in countries like Norway and Denmark.

The lemming is not a very handsome animal to look at. It is small and looks rather like a rat. But the lemming of Norway has one strange habit which makes it very different from a rat, or from any other animal.

Once in every few years, the lemmings of Norway leave their homes in the mountains and start travelling. They cross fields and woods and they swim across streams and rivers, until, after a few months of travelling they reach the sea. The sea doesn't make them stop. They jump in and start swimming, and they keep on and on, until, at last, they are so tired that they have to stop swimming. And then, of course they drown.

1. Where do lemmings live?
(1) In Pakistan
(2) In India
(3) In very cold countries
(4) In very hot countries
2. How do lemmings look like?
(1) Like a fish
(2) Like a monkey
(3) Like a rat
(4) Like a cat
3. Which lemmings have a strange habit?
(1) Lemmings of Africa
(2) Lemmings of Denmark
(3) Lemmings of India
(4) Lemmings of Norway
4. What is the size of a lemming?
(1) Very tall
(2) Small
(3) Very small
(4) Very big
5. Where do we find the homes of lemmings?
(1) In the mountains
(2) On the plains
(3) In seas
(4) In rivers
6. I ......... (meet) an old friend yesterday.

Choose the correct form of the verb given in the bracket to fill in the blank.
(1) has met
(2) wasmet
(3) had met
(4) met
7. Kapil used to bowl very fast. The word 'fast' is used as a/an
(1) pronoun
(2) noun
(3) adverb
(4) adjective
8. My grandmother reads $\qquad$ Ramayana everyday.
Insert a suitable article.
(1) no article is necessary
(2) the
(3) an
(4) a
9. Ramesh $\qquad$ (like) Physics.
Choose the correct form of the verb given in the bracket to fill in the blank.
(1) likes
(2) has liked
(3) is liking
(4) liked
10. Rahul cooks well, $\qquad$ .?
Choose the appropriate question tag to be inserted in the given blank.
(1) do he?
(2) doesn't he?
(3) does he?
(4) . didn't he?
11. 'The silent letter in the word, 'comb' is $\qquad$
(1) 0
(2) c
(3) m
(4) b
12. Identify the correctly spelt word.
(1) Aaditarium
(2) Auditorium
(3) Audetorium
(4) Auditarium
13. Bahuguna had walked throughout rural India.

The opposite of 'rural' is $\qquad$
(1) village
(2) town
(3) urban
(4) city
14. Identify the correctly spelt word.
(1) balance
(2) aniversary
(3) independant
(4) conferance
15. She is a spinster school teacher. 'Spinster' means $\qquad$
(1) a married man
(2) an unmarried man
(3) a married woman
(4) an unmarried woman
16. All seats are full.

The opposite of 'full' is $\qquad$
(1) half
(2) vacant
(3) complete
(4) empty
17. One should love $\qquad$ country.
Choose the correct pronoun to fill in the blank.
(1) our
(2) one's
(3) her
(4) his
18. Find the odd word out from the list of four words given below: chamber, corridor, assembly, balcony
(1) balcony
(2) assembly
(3) corridor
(4) chamber
19. Padma played the guitar, $\qquad$ ?
Choose the appropriate question tag to be inserted in the given blank.
(1) did she?
(2) does she?
(3) didn't she?
(4) don't she?

## Q. Booklet <br> Code <br> D

20. Shall we go to a film tomorrow?

The given expression refers to the function of
(1) question
(2) help
(3) suggestion
(4) invitation
21. Ravi ate many cakes.

Passive form of the given sentence is $\qquad$
(1) Ravi eaten many cakes.
(2) Many cakes were eaten by Ravi.
(3) Many cakes were ate by Ravi.
(4) Many cakes are eaten by Ravi.
22. The King stood $\qquad$ the stag.

Choose the correct preposition to fill in the blank.
(1) besides
(2) beside
(3) on
(4) at
23. India $\qquad$ (get) independence in 1947.

Choose the correct form of the verb given in the bracket to fill in the blank.
(1) had got
(2) is getting
(3) got
(4) gets
24. The sun $\qquad$ (rise) in the east.

Choose the correct form of the verb given in the bracket to fill in the blank.
(1) is rising
(2) rose
(3) rises
(4) rise

## Q. Booklet

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D
25. He did his homework by $\qquad$
Choose the correct pronoun to fill in the blank.
(1) herself
(2) him
(3) himself
(4) his self
26. Find the odd word out from the list of four words given below :
doctor, lawyer, engineer, cooker
(1) cooker
(2) engineer
(3) lawyer
(4) doctor
27. Jivan said, "I have, read this book."

The reported form of the given sentence is
(1) Jivan said that he had read this book.
(2) Jivan said that he has read that book.
(3) Jivan said that I had read this book.
(4) Jivan said that he had read that book.
28. Ashok is the boldest boy,

The comparative form of the given sentence is $\qquad$
(1) Ashok is bolder than any other boy.
(2) Ashok is boldest than any other boy:
(3) Ashok is more bolder than any other boy.
(4) Ashok is more bold than any other boy.
29. He is very poor. He cannot buy a car.

The given sentences can be combined as
(1) As he is poor he bought a car.
(2) Though he is poor he bought a car.
(3) He is so poor that he cannot buy a car.
(4) He is so poor but he bought a car.
30. He plays the violin $\qquad$ concerts.

Choose the correct preposition to fill in the blank.
(1) with
(2) to
(3) in
(4) at
31. Can you show me the way to the bus stand?

The given expression refers to the function of $\qquad$
(1) Question
(2) Making a suggestion
(3) Seeking information
(4) Offering help
32. Sachin has created a new world record in cricket.

Passive form of the given sentence is $\qquad$
(1) A new world record had been created by Sachin in cricket.
(2) A new world record has been created by Sachin in cricket.
(3) Sachin had been created a new world record in cricket.
(4) Sachin has been created a new world record in cricket.
33. Raghu $\qquad$ (come) to office tomorrow.

Choose the correct form of the verb given in the bracket to fill in the blank.
(1) will be coming
(2) will come
(3) comes
(4) come
34. The King is malicious, 'Malicious' means
(1) desiring to do harm
(2) kind
(3) lovable
(4) joyful
35. Which word is pronounced in the same way as 'battle'?
(1) bundle
(2) rattle
(3) bottle
(4) mantle
(36-40) Read the following passage. Focus on the given five blanks. They represent five questions based on the passage. Questions appear after the passage.

We took $\qquad$ (36) early morning flight to Delhi. $\qquad$ (37) Delhi, we stayed in a hotel. We $\qquad$ (38) the day on sightseeing. The next day, $\qquad$ (39) went to Agra. Later, we returned $\qquad$ (40) Delhi.
36. (1) no article is necessary
(2) the
(3) an
(4) a
37.
(1) By
(2) In
(3) At
(4) On
38. (1) has spent
(2) had spent
(3) spend
(4) spent
39. (1) I
(2) they
(3) us
(4) we
40. (1) over
(2) to
(3) into
(4) in
41. Peter is $\qquad$ European.
Insert a suitable article.
(1) no article is necessary
(2) the
(3) a
(4) an
42. Swathi said to Prasad, "I want to become a software engineer."

The reported form of the given sentence is $\qquad$
(1) Swathi said that she wanted to become a software engineer.
(2) Swathi told Prasad that he wants to become a software engineer.
(3) Swathi told Prasad that she wanted to become a software engineer.
(4) Swathi said to Prasad that she wanted to become a software engineer.
$\qquad$
43. Gopi $\qquad$ (live) in Hyderabad since 1975.
Choose the correct form of the verb given in the bracket to fill in the blank.
(1) is living
(2) has been living
(3) lived
(4) lives
44. Gopal swam $\qquad$ the river.
Choose the correct preposition to fill in the blank.
(1) across
(2) over
(3) on
(4) in
45. How do you do?

The given expression refers to the function of
(1) an enquiry
(2) asking for information
(3) a greeting
(4) asking a question
46. The silent letter in the word, 'knife' is
(1) i
(2) k
(3) $n$
(4) f
47. Look, how beautiful she $\qquad$ (dance).
Choose the correct form of the verb given in the bracket to fill in the blank.
(1) dances
(2) was dancing
(3) danced ${ }^{-}$
(4) is dancing
48. She is poor. She is honest.

The given sentences can be combined as $\qquad$
(1) She is poor but she is honest. (2) Because she is poor, she is honest.
(3) She is poor so she is honest.
(4) A's she is poor she is honest.
49. The silent letter in the word, 'rumour' is
(1) first ' $u$ '
(2) last ' $r$ '
(3) first ' $r$ '
(4) m
50. Mount Everest is $\qquad$ highest mountain peak in the world.
Insert a suitable article.
(1) no article is necessary
(2) an
(3) $\mathbf{a}$
(4) the

## PART - II <br> BIOLOGY

Q. Booklet

Code
D
51. HIV is carried by
(1) food
(2) air
(3) water
(4) human blood

HIV నాసకం $\qquad$
(1) ఆహた
(2) $m 0$
(3) \$రు
52. Spread of STDs and AIDS is $\qquad$
(1) linked to less than $1 \%$
(2) linked to some extent
(3) closely related
(4) not at all linked
STD అ న్కాస్రి మఃయు AIDS ల మ్య
(1) $1 \%$ క్న్నా రక్రు నంబంరం
(2) కొర్రి మేరకు సంబంర్య ఉంది
(3) దగ్గరి సంబంర్ ఉంది
(4) సంబంఫం లేరు
53. The admission of a HIV infected child in a school should be along with the
(1) should not be admitted in schools at all
(2) should be admitted in special schools
(3) should not be along with the other normal children
(4) other normal children
 $\qquad$
(1) అసలు సిశాలలోస కేయ్ కోరారు

54. Macronutrients are $\qquad$
(1) carbohydrates, sodium
(2) fats, copper
(3) proteins, vitamins
(4) carbohydrates, iron

స్లూల పొషాలుు గు్తంకంష
(1)) उర్సోషై(్రీఎ్ను, సడయయ
(2) కొప్కులు, కావక
(3) స్రోబసులు, విబమికులు

55. The energy released by 1 gram of glucose is
(1) 3 kcal
(2) 6 kcal
(3) 5 kcal
$\sqrt{(4)^{+}} 4 \mathrm{kcal}$

1 [1ాము గ్లో
(1) $3 \frac{3}{3} .3$.
(2) 6 a. 3.
(3) 5 3. 3.
(4)) 4 s. కี.

## Q. Booklet <br> Code <br> D

56. Biologically complete proteins are proteins from
(1) meat, milk, egg
(2) rice, meat, butter
(3) apple, egg, wheat
(4) potato, onion, carrot
 $\qquad$
(1) మాంకం; సాలు, గుక్డి
(3) $\grave{\omega}$, గడడ్క్రు, గోఛుమ
(2) पాస్యం, మాంసం, $ె ౖ న ్ న ్ ~_{2}$
(4) బంగాం కుంపలు, ఉల్Rిపాయలు, కారక్
57. Goitre is due to the deficiency of
(1) iodine
(2) selenium
(3) zinc
(4) calcium


(2) ిలనయక్
(3) $2 \circ$ E
(4) కాల్నియక్
58. Recent studies have shown that obesity is
(1) infectious
(2) may be inherited
(3) contageous
(4) not inherited

(1) సాంలమిక వ్యా
(2) इం\% సాకం వర్యం ఆసష్చు

(4) వంగ సेరం పర్యం కాడు
59. Niacin is vitamin
(1) $\mathrm{B}_{3}$
(2) $\mathrm{B}_{12}$
(3) $\mathrm{B}_{6}$
(4) $\mathrm{B}_{1}$
స్కాిన్ crio మuమిక్ $\qquad$
(1) $D_{3}$
(2) $\stackrel{\rightharpoonup}{12}$
(3) $D_{6}$
(4) $\omega_{1}$
60. Biotin is a/an
(1) food substance
(2) vitamin
(3) excretory substance
(4) fat
พయై 3 T e \% $\qquad$
(1) ఆహార కార్రం
(3) 2 స్ర్ సదార్

E-2
61. Water soluble vitamins are $\qquad$
(1) thiamin, ascorbic acid, biotin
(2) Riboflavin, cynacobalamin, calciferol
(3) tocoferol, niacin, pantothinic acid
(4) folic acid, carotene, pyridoxine

### 3.35 xeri pususue

$\qquad$




62. The vitamin that helps in the healing of wounds and fractures of bones is $\qquad$
(1) $\mathrm{B}_{1}$
(2) $\mathrm{B}_{12}$
(3) C
(4) K

(1) $\nabla_{1}$
(2) $D_{12}$
(3) $)$
(4) 3
68. The vitamin required for coagulation of blpod is
(1) $\mathrm{B}_{1}$
(2) K
(3) C
(4) $\mathrm{B}_{6}$

(1) $D_{1}$
(2) ${ }^{3}$
(3) z
(4) $D_{6}$
64. Vehicle borne transmitted diseases are
(1) eye infection and influenza
(2) mumps and common cold
(3) chicken pox and tetanus
(4) plague and malaria

నాసుము ర్వారా వ్యాక్తి కంే న్యాకులు $\qquad$



(4) ప్గు, మలోయ
65. Inflammation of lymph vessels and lymph glands results in a disease known as
(1) hepatitis
(2) encephalitis
(3) filaria
(4) malaria
 $\qquad$
(1) $\mathbf{~ 2 n a} 255$
(2) 引ుకగు నాక్ర్యాయ
(3) 5 ోర్యా
(4) మలేయా
86. The process in which energy stored in carbohydrates is released is known as $\qquad$
(1) excretion
(2) reproduction
(3) respiration
(4) photosynthesis
 $\qquad$
(1) బుకర్జనత్ర
(2) क్రగ్యుత్వల్త
(3)) $\sqrt{5}: క ్ ర ు$
(4) కిరణఱน్ల కంయోగ్రియ
37. Which of the following is released during photosynthesis?
(1) Energy
(2) Light
(3) Carbon dioxide
(4) Oxygen

(1) 7 y
(2) 300
(3) కూర్బన్డులక్రై
(4)) $\mathrm{BS}_{2}^{2} 255$
68. Respiration differs from combustion in
(1) initial supply of oxygen
(2) initial burning of the substance
(3) release of heat at several stages
(4) release of heat at once
 $\qquad$




69. Cellular respiration takes place in the $\qquad$ .
(1) mitochondria
(2) chloroplasts
(3) nucleus
(4) cytoplasm
 0.......
(3) కొంర్రకం

(4) కeశర్రవ్
70. Cutaneous respiration occurs in $\qquad$
(1) parrot
(2) crab
(3) salamander
(4) cockroach

(1) Wey
(2) $\circlearrowleft$
(3) సresroct
(4)
71. Amphibious animal is a/an
(1) cockroach
(2) frog
(3) earthworm
(4) leech
atow $\qquad$
(2) $x \Sigma$
(4) zoर
(1) 5ొOROI
72. The cartilagenous rings that support the trachea of man are in the shape of . న్ర్ల2 $\qquad$ ..
(1) C
(2) .0
(3) D
(4) J
73. Hemoglobin of blood transports
(1) both oxygen and carbon dioxide
(2) nitrogen only
(3) carbon dioxide only
(4) oxygen only
 $\qquad$


(3) $3 \times 55$

74. Photophosphorylation occurs in $\qquad$
(1) nucleus
(3) cytoplasm

(1) కేంర్ర
(3) జుననదాళ్రం
(2) chloroplasts
(4) mitochondria
(2) ప-యకలానులు
(4) $\mathbf{~ T క ో}$

E-2
＇5．Animal without red blood cells is a／an
（1）peacock
（2）snake
（3）earthworm
（4）frog
ఎe్రర్తక కాలు ల్యిని $\qquad$
（1） 3 Bio
（2）$ప \mathbf{~} /$
（3） $\mathrm{D} న ప ా మ ు ~$
（4） T

76．In a cockroach，the muscles that help in sending the blood into the heart are
（1）bronchial muscles
（2）alary muscles
（3）cardiac muscles
（4）tracheal muscles

（1）ఉరూకుర కండ్రలు
（2）వ్షr＂
（3）\＃ృธయ Уండ్రాల
（4）इాయునాళ కండ్రాలు

77．A thirteen chambered heart occurs in
（1）snail
（2）cockroach
（3）earthworm
（4）leech
13 గకుల ష్రయం కల moరుః
（1）$\ddagger \overleftrightarrow{1}$
（2） 5 L్రంs
（3）నానస్ము
（4）zeK

78．Heart attack is caused by the blocking of the $\qquad$ ．．．
（1）pulmonary vein
（2）coronary vein
（3）coronary artery
（4）pulmonary artery


（2）హృ凹యఃః

（4）ごపున రాకు

79．Blood pressure is measured by a ： $\qquad$
（1）Thermometer
（2）Barometer
（3）Sphygmomanometer
（4）galvanometer
D．స．n కొలు $505 \%$ $\qquad$
（2）బరకియు
（1）\＄0్2మ

（4）Trozsturw

E－2
［15］
（P．T．O．）
80. Human right auricle receives $\qquad$
(1) deoxygenated blood
(2) mixed blood
(3) lymph
(4) oxygenated blood

మానక్రు కుడి కర్ఠలకు చేం $\qquad$
(1)) అ్్గానిహాత రక్తం
(2) మిగ్మ రక్
(3) లిఫర్రసం
(4) తమ్లిని సహిత ర్తం
81. Bicuspid valve allows blood to flow from
(1) left auricle to left ventricle
(2) left ventricle to right ventricle
(3) left auricle to right ventricle
(4) right auricle to right ventricle

(1) ఎడమ కర్దీ
(2) ఎโీమ జహలక నుండి కుడి జఠరక
(3) ఎడేమ కర్రిక నులడి కుદ ఇడరిక

82. The total salt content in blood is about

ర్యంలో టండే మొひ్రం లవలాలశారం
(1) $0.85-0.9$
(2) $2.85-2: 9$
(3) $11.85-11.9$
(4) $1.85-1.9$
83. Multilobed nucleus is present in the following blood cells.
(1) Basophil
(2) Monocyte
(3) Neutrophil
(4) Acidophil

అనేక త్నలు కం కేంద్రకం కల రక్తకొ
(1) చ్రససిఫ్
(2) మానో
(3) ూ్రూభ్రోఫ్
(4) $2 \approx$ i 5
84. The life span of W.B.C. is
(1) 15 to 20 days
(2) 12 to 13 days
(3) 10 to 12 days
(4) 14 to 15 days

తల్గర్తకలాలు tiఃింబయయుండీ కాలo
(1) 15-20 కోzeలు
(3) 10-12 రో2ులు
(2). 12-13 రోజులు
(4) 14-15 ర $^{6}$ ervu
E-2
[16]
5. Karl Landsteiner discovered $\qquad$
(1) proteins in blood
(2) blood vessels
$\sqrt{(3)}$ blood groups
(4) blood corpuscles
 $\qquad$
(1) ర్షంలోన స్రొటనులు

((3)) రక వ్నాలు
(4) రక్రీrev
86. If a terminal bud of a plant is removed, then the
(1) roots do not develop
(2) plant increases in height
(3) lateral branches grow
(4) plant grows to a normal height
spmuxreoon $\qquad$




87. Diabetes mellitus is caused due to the deficiency of $\qquad$ ....
(1) insulin
(2). glucagon
(3) oestrogen
(4) testosterone
 $\qquad$
(1) 7 Tu Dim
(2) K
(3) گ. స్రోబన్
(4) इस్జ్ర
88. The hormone that helps in the implantation of embryo is $\qquad$
$\sqrt{ }(1)$ progesterone
(2) prolactin
(3) insulin
(4) testosterone

(1) そొఫ్రన్
(2) क్య $\frac{125}{5}$
(3) $72,0 / 5$
(4) axyor
E. 2
[17]
89. The structures in the body that act as wires of a telephone are $\qquad$
$\sqrt{(1)}$ nerves
(2) muscle fibers
(3) arteries
(4) veins

(1) నాడులు
(2) - కండర కంひుపులు
(3) ధనునులు
(4) పెరలు
90. Cranial nerve that controls the heartbeat is
(1) Vagus
(2) Aorta
(3) Postcaval
(4) Precaval

(1) వేగ్నాడి
(2) మనార్మన
(3) $\mathbf{1 ర ు హ ా క ~}$

91. The box like structure made up of bones which gives protection to the brain is the
(1) pericardial cavity
(2) cranium
(3) abdominal cavity
(4) thoracic cavity
 $\qquad$
(1) పృదయానరల కుసరుు
(2) కసాలము
(3) बదర కుషరము
(4) ఉరో కుహరము
92. The structure that passes through the vertebral column and controls reflex actions is the $\qquad$
(1) medulla oblongata
(2) spinal cord
(3) central cortex
(4) diencephalon
 $\qquad$
(1) మణ్ణముషము
(22) నెన్ను పాము
(3) మఫ్త్ వe్jeo
(4) 致 U గ్ర
93. The organ in the body that has an aesthetic sense to appreciate poetry is the $\qquad$
(1) pituitary
(2) brain
(3) kidney
(4) heart
 $\qquad$
(1) సయూనగ్రి
(3) మూొరిండము
(4) పృ■యం
94. Differentiation of callus tissue into different parts in the tissue culture method is on account of the choice of $\qquad$
(1) tissue selection from the parent plant
(2) containers used for this purpose
(3) plant growth substances in the medium
(4) cells from the parent plant
 $\qquad$




95. Root part is represented in a mature embryo by the
(1) cotyledons
(2) chalaza
(3) radicle
(4) plumule

(1) Draspeu
(2) FPus
(3) (్రథమ మూలము
(4) ప్రథమ కాండము

E-2

## Q. Booklet Code <br> D

96. When both the male and female sex organs are present in the same animal, the phenomenon is called $\qquad$
(1) unisexualism
(2) secondary sexual characters
(3) hermaphroditism
(4) sexual dimorphism
 $\qquad$
(1) Dseniss
(3)) -¢య లైదినవ
(2) E్యాయ ల్రొ ల
97. The nucleus of paramoecium that is responsible for vegetative function is $\qquad$
(1) macronucleus
(2) stationary pronucleus
(3) migratory nucleus
(4) micronucleus

98. The sperm mother cells in an earthworm mature into spermatozoa in the $\qquad$
(1) seminal vesicles
(2) testes
(3) spermatheca
(4) vas deferens
 $\qquad$
(1) జుఝ్రాయికలు
(2) జుझాయయు

(4) \%
99. Number of ova released at a time in female human beings is $\qquad$
 $\qquad$
(1) 1
(2) 2
(3) 3
(4) 4
100. AIDS is caused by a $\qquad$
(1) protozoan
(2) fungus
(3) bacterium
(4) virus
 $\qquad$

(3)

[^0]E-2

## PART - III

PHYSICAL SCIENCE
Q. Booklet
Code
101. Nylon 6, $6^{\prime}$ is used in $\qquad$
(1) making bristles of brushes
(2) making gramophone records
(3) making insulators
(4) making raincoats

నైల్ 6,6' యు్క ఉఝయోగఘు $\qquad$
(1) జ్ర్ ముంస్గు రీయో
(2) س్మ్ఖాన్ రrర్దులు రయార
(3) నక్యు
(4) వర్నపుకోట్గరయార
102. The number of carbons present in the mixture of hydrocarbons present in petrol is $\qquad$
(1) more than 15 .
(2) 10 to 15
(3) 1 to 3
(4) 5 to 9


(2) $10 N \sim \mathrm{~s} 15$
(3) 1 నుండి 3 ,
(4) 5 N上\& 9
103. The quantum number that explains the orientation of electrons in orbitals is called $\qquad$
(1) Spin quantum number
(2) Magnetic quantum number
(3) Azimuthal quantum number
(4) Principal quantum number

అర్పిలా e $\qquad$

(2) అయస్కంం క్యాఎం సంఖ్క
(3) ఆజముల్ క్నాంNం సంభ్ర

104. The weight of oxalic acid required to prepare a $100 \mathrm{ml}, 0.1 \mathrm{M}$ oxalic acid solution is $\qquad$
(1) 1.26 gms
(2) 2.52 gms
(3) 1.06 gms
(4) 0.4 gms

(1) 1.26 er.
(2) 2.52 m.
(3) 1.06 g.
(4) 0.4 m.

## Q. Booklet

D
Code
105. Which of the following is true for amino acids?
$\sqrt{ }(1)$ They are covalent substances
(2) They are ionic substances
(3) Do not dissolve in water
(4) Melting point is very less
 $\qquad$




106. Bromine
(1) does not have electron affinity
(2) does not dissolve in water
(3) participates in substitute reactions slowly
(4) is an alkali earth metal

గ్రేమ్న్. $\qquad$
(1) ఎలక్ర్ర్ అఫినిS ధర్యం ఎండదు
(2) $2,30^{-1} 30 \%$

(4) द్రా మృత్ర కోసొు
107. In an ideal transformer, the number of turnings in primary and secondary coils are 100 and 300 . If the current in the primary coil is 2 amperes, then the current in secondary coil is
(1) 6 Amp
(2) 0.66 Amp
(3) $1 / 6 \mathrm{Amp}$
(4) 1.5 Amp


(1) $6 \oplus$
(2) 0.66
(3) $1 / 6 \cup 0$
(4) $1.5 \cup \circ$
E-2

108．In an experiment of finding the diameter of a lead shot，a screw gauge with a least count of 0.001 cm is used．The pitch scale and head scale readings are found to be 1.8 cm and 20 respectively．Then the radius of lead shot is $\qquad$ （Error free screw gauge is used）．



（1） 1.82 mm
（2） 0.91 mm
（3） 1.82 cm
（4） 0.91 cm

109．Generally，the orbital velocity of an artificial satellite is
（1）nearly zero
（2）$>11 \mathrm{~km} / \mathrm{sec}$
（3）$<8 \mathrm{~km} / \mathrm{sec}$
（4） $8 \mathrm{~km} / \mathrm{sec}$ to $11 \mathrm{~km} / \mathrm{sec}$
 $\qquad$
（1）पాలాళు కున్న
（2）$>$ i1 $3.54 . /$ ล．
（3）$<8$ s．む．／3．
（4） 8 3．ము．／స．నుంむి $11,3 . \mathrm{m} . / \mathrm{m}$ ．

110．In ordinary light，＇optical noise＇is because of
（1）lack of coherence．
（2）monochromacity
（3）high intensity
（4）coherence

（1）Еおouk
（2）ذצ వక్దీయయ
（3）యిక bఱ్ర
（4）इows

111．Mass defect of helium nucleus is $\qquad$
 $\qquad$
（1） 0.137 amu
（2） 0.0304 amu
（3） 4.0026 amu
（4） 4.0330 amu

112．In a television receiver，channel selector means $\mathrm{a} / \mathrm{an}$
（1）receiving antenna
（2）demodulator
（3）amplifier
（4）resonating circuit


（2）ลృాడ్లులే
（3） $\mathrm{J}_{2} \mathrm{Z}_{6} 50 \mathrm{c}^{3}$
（4）Уองఁఁయం

113．The elements with electronic configuration＇$n s^{1}$ to $n s^{2} n p^{5 \prime}$ are $\qquad$
（1）inner transition elements
（2）transition elements
（3）representative elements
（4）inert gases
＇ $\mathrm{ns}{ }^{1}$ నుండి $\mathrm{ns}^{2} \mathrm{np}^{5}$ పరకు＇ఎలక్ర్రన్ విన్యానము కరిన మాలకాలు $\qquad$
（1）లంలర నంనద్న మూలకాలు
（2）పరుర్తన మొలకాలు
（3）ఫ్రాతిర్య మొలకాల
（4）జడి వాయుపులు

114．When phosphorous pentoxide is dissolved in water，it produces
（1）phosphorous trichloride
（2）phosphine
（3）phosphorous acid
（4）phosphoric acid
\＃\％ $\qquad$

（2）$\ddagger$ భ్రీన్
（3）ఫాస్రుむ లుమ్లం
（4）సాస్కారిన్లుం

115．＇Tollens＇test＇is the characteristic property of $\qquad$
（1）ketone
（3）ether
（2）ester
（4）aldehyde

（1）కేటోస్
（3）๘ゅひ
（2）ఎझ్టరు ．
（4）งర్తైక

116．The substance added to glass to impart a purple colour $\qquad$ ..

（1） $\mathrm{MnO}_{2}$
（2） $\mathrm{Cu}_{2} \mathrm{O}$
（3） $\mathrm{AuCl}_{3}$
（4） $\mathrm{Cr}_{2} \mathrm{O}_{3}$

117．The $\qquad$ aqueous solution do not contains ions．
（1） $\mathrm{CuSO}_{4}$ solution
（2）Sucrose solution
（3） $\mathrm{NH}_{4} \mathrm{OH}$ solution
（4） NaCl solution

అయానులు ఉంఁని జల（రావఁకము．
（1） $\mathrm{CuSO}_{4}$ ze［్రాపలము
（2）
（3） $\mathrm{NH}_{4} \mathrm{OH}$ జu［్రావలనము
（4）． NaCl ฉల ద్రాబలశుు

118． 1 Gauss $=$ $\qquad$ Tesla
1 m ్ $=$ $\qquad$ 3స్దా
（1） $10^{4}$
（2） $10^{-4}$
（3） $0.39 \times 10^{4}$
（4） $0.39 \times 10^{-4}$
119. ${ }_{13}{ }^{20} P^{*} \longrightarrow{ }_{14}^{35} S i+$ $\qquad$
(1) gamma ray
(2) beta particle
(3) positron
(4) electron
${ }_{10}^{30} \mathrm{P}^{*} \longrightarrow{ }_{34}^{30} \mathrm{Si} i+$ $\qquad$
(1) $\pi \times 5 \mathrm{~s} 3 \mathrm{cmo}$
(2) Burseco
(3) \#ి心్రాన్
(4) DeJ్ु్
120. The time period and length of a 'seconds pendulum' respectively are $\qquad$
 $\qquad$
(1) $2 \mathrm{sec}, 100 \mathrm{~cm}$
(2) $2 \mathrm{sec}, 1 \mathrm{~cm}$
(3) $2 \mathrm{~m}, 100 \mathrm{sec}$
(4) $2 \mathrm{~cm}, 100 \mathrm{sec}$
121. 1 Lumen $=$ $\qquad$
(2) erg/sec/steradian
(1) $\mathrm{erg} / \mathrm{sec} / \mathrm{steradian} / \mathrm{candella}$
(4) $\mathrm{erg} / \mathrm{sec}$

1 बै2 $315=$ $\qquad$



(4) $2 \mathrm{~K} / 3 \times 5$
122. $\mu r$ value of soft iron is

మ్రుs శุనుము యిక్క $\mu r$ నevవ
(1) $\leqslant 1$
(2) $\gg 1$
(3) $>1$
(4) $<1$
123. In the Periodic Table,
(1) right side elernents are strong reducing reagents
(2) right side elements are weak oxidizing reagents
(3) left side elements are strong oxidizing reagents
(4) left side elements are strong reducing reagents

Uవy $\qquad$
(1) $x$ dỉd

(3) 2 Ew


$$
\text { E. } 2
$$

$\qquad$
124. Correct order for electron affinity of halogens is

(1) $\mathrm{F}<\mathrm{Cl}<\mathrm{Br}<\mathrm{I}$
(2) $\mathrm{Cl}<\mathrm{F}<\mathrm{Br}<I$
(3) $\mathrm{F}>\mathrm{Cl}>\mathrm{Br}>$ I
(4) $\mathrm{Cl}>\mathrm{F}>\mathrm{Br}>\mathrm{I}$
125. $10 \%$ sodium chloride solution means $\qquad$
(1) $10 \operatorname{gram~} \mathrm{NaCl}, 50 \mathrm{ml}$ water $\quad$ (2) $10 \mathrm{gram} \mathrm{NaCl}, 10 \mathrm{ml}$ water
(3) $10 \mathrm{gram} \mathrm{NaCl}, 100 \mathrm{ml}$ water
(4) 10 gram $\mathrm{NaCl}, 90 \mathrm{ml}$ water
$10 \%$ సీజయం క్రు జలర్రానలము లకT $\qquad$

(2) 10 ణ్రుల సీయం కోళడు, 10 మ.b. \$ు


126. Which of the following do not have a $\pi$ bond?

(1) $\mathrm{BeF}_{2}$
(2) $\mathrm{CO}_{2}$
(3) $\mathrm{N}_{2}$
(4) $\mathrm{O}_{2}$
127. Identify the substance which is not ionic.

అయానిక మదార్రము కానిి.
(1) $\mathrm{BeCl}_{2}$
(2) $\mathrm{CaCl}_{2}$
(3) $\mathrm{MgCl}_{2}$
(4) $\mathrm{BaCl}_{2}$
128. The correct equation of motion in case of a body projected upwards is (initial velocity $u$, final velocity $v$, acceleration $g$, time $t$, maximum height $h$ ).
 $\qquad$

(1) $v^{2}=2 g h$
(2) $h=1 / 2 g t^{2}$
(3) $u=g t$
(4) $\quad v=g t$
129. In progressive waves with equal amplitudes, the distance between first and fourth crest is 60 cm . The wavelength of the wave is $\qquad$


(1) 60 cm
(2) 30 cm
(3) 20 cm
(4) 15 cm

130．In a uniform circular motion，the following remains constant．
（a）radius
（b）angular velocity
（c）time period
（1）（a），（b）and（c）are constant
（2）only（a），（c）are constant
（3）only（b），（c）are constant
（4）only（a），（b）are constant

（a）న్యాళ్రకు
（b）కో $ి య$ వేగము
（c）uవ్రన కాeమu
（1）（a），（b），（c）లు మాడుళ్త్రు
（2）（a），（c）$ల$ మాయ్రమే స్రుము
（3）（b），（c）లు మాత్రియుు
（4）（a），（b）లు మార్రమ్శియము

131．The ratio of acceleration due to gravity on the surface of earth and moon is nearly $\qquad$
 $\qquad$
（1） $3: 1$
（2） $1: 3$
（3） $1: 6$
（4） $6: 1$

132．Revolutions per minute of a wheel is 1200 ．If the wheel travels 3000 m in 5 minutes，then the distance travelled by the wheel for one revolution is $\qquad$
（1） 4 m
（2） 2 m
（3）． $1 / 2 \mathrm{~m}$
（4） 1 m

 $\qquad$
（1） 4 引
（2） 2 ない
（3） $1 / 2$ 5u
（4） 1 引ぃ


133．False statement about $p$ orbital is $\qquad$
（1）$p$ orbitals lies on three axes depending on orientation
（2）$l$ value for $p$ orbital is 1
（3）$p$ orbital is present from $L$ shell
（4）energy of subshells of $p$ orbital is same in presence of magnetic field
 $\qquad$


（3）$L$ కర్పంము

134. During the electrolytic reduction of $\mathrm{MgCl}_{2}$, coal gas is passed over floating magnesium. The reason for this is $\qquad$
(1) to prevent oxidation
(2) to increase reduction and oxidation
(3) to prevent reduction
(4) to remove impurities

(1) ఆక్సికరmo నవారిగుబుక

(3) క్షయకరలొం సాారంకుబకు
(4) మలినాలు ఠలొొంకుకు
135. Example for the triple bond molecule is $\qquad$ 10ిక బంధం దఠడు veశుపుకు టడాహరల $\qquad$
(1) $\mathrm{C}_{2} \mathrm{H}_{2}$
(2) $\mathrm{CO}_{2}$
(3) $\mathrm{H}_{2} \mathrm{O}$
(4) $\mathrm{O}_{2}$.
136. If the lids of the bottles $A, B, C$ are opened, the acid in $B$ vapourizes quickly. The acid in $A$ vapourizes very slowly and in $C$ it vapourizes slowly. Then the acids present in $A, B, C$ are


(1) $\mathrm{CH}_{3} \mathrm{COOH}, \mathrm{HCl}, \mathrm{H}_{2} \mathrm{SO}_{4}$
(2) $\mathrm{HCl}, \mathrm{CH}_{3} \mathrm{COOH}, \mathrm{H}_{2} \mathrm{SO}_{4}$
(3) $\mathrm{H}_{2} \mathrm{SO}_{4}, \mathrm{HCl}, \mathrm{CH}_{3} \mathrm{COOH}$
(4) $\mathrm{H}_{2} \mathrm{SO}_{4}, \mathrm{CH}_{3} \mathrm{COOH}, \mathrm{HCl}$
137. One of the following substances which is not an aliphatic hydrocarbon is
(1) Ethane
(2) Benzene
(3) Propane
(4) Ethylene
 $\qquad$
(1) ऊథ్య్
(2) మొనిన్
(3) స్రోస్న్
(4) $\ddagger$ ¢ W

## Q．Booklet <br> Code <br> D

138．Half－life period of a radioactive substance is 5730 years．Time required by it to become $1 / 16^{\text {th }}$ of its initial mass is
1） 22920 years
（2） 28650 years
（3） 17190 years
（4） 11460 years
 స్టులాలము $\qquad$
（1） 22920 సం॥
（2） 28650 โอ॥
（3） 17190 \％o॥
（4） 11460 సం॥

139．The atom to be doped into Germanium atoms to form a $P$－type semiconductor is $\qquad$
（1）Phosphorous
（2）Silicon
（3）Indium
（4）Antimony

（1）ఫrさృणた
（2）$ి ల$ లాన్
（3）₹లడియ๐
（4）అంనమొన

140．If the length and area of a cross section of a copper wire are doubled，then its specific resistance
（1）remains constant
（2）decreases to $1 / 4^{\text {th }}$
（3）increases four times
（4）increases two times
 2

（2） $1 / 4$ ప పంఙు తగ్గ్రు
（3）నాeుగు రు్లు కరుగును
（4）రండు రむ్గు సరూగకు

141．A wire of resistance $R$ is cut into 5 equal parts and then the parts are connected in series．The resultant resistance is ．

（1）$\frac{R}{5}$
（2）$R$
（3） $5 R$
（4）$\frac{25}{R}$

## Q. Booklet <br> Code

D
142. Which of the following is used as an application of coating of gold on brass metal?
(1) Ampere's law
(2) Fleming's right hand rule
(3) Faraday's law of electrolysis
(4) Fleming's left hand rule

ఇత్తి రోబొము ఫై బంగారు పూఆ వూయడ్ుు క్రింది నాటలోప్రి ఆసువర్తనము?
(1) అంటయ్ నిముచు

(3) ఫరాడ్స్ నద్యుద్మేష్ నియముుు
(4) స్గిమింగ ఎడమ ปేతి నింథన
143. The valency band of a semiconductor is completely filled with electrons at this temperature.

(1) 100 K
(2) 273 K
(3) $-273^{0} \mathrm{C}$
(4) $273^{\circ} \mathrm{C}$
144. ${ }_{61}^{218} \mathrm{Po}$ belongs to this radioactive series.
(1) Actino Uranium series
(2) Uranium series
(3) Thorium series
(4) Neptunium series



(3) థోంయం ోో

145. Correct order of electromagnetic waves with respect to wavelengths is $\qquad$
(1) Infrared $>$ Ultraviolet $>\mathrm{X}>\gamma$
(2) Infrared $>\mathrm{X}>\gamma>$ Ultraviolet
(3) : Infrared $>\gamma>\mathrm{X}>$ Ultraviolet
(4) Infrared $>\mathrm{X}>$ Ultraviolet $>\gamma$
 $\qquad$


(3) పరారుల > Tామా > ఎక్స్ > 0 OWల లోసు

146. "Ampere-meter ${ }^{2 n}$ is the unit for $\qquad$
(1) magnetic susceptibility
(2) intensity of magnetization
(3) magnetic moment
(4) pole strength
 $\qquad$
(1) అయネ్కంత నస్కిటిలియ
(3) అయస్కాంఠ ఫ్రమకము
(2) שయస్కంతీకరల రద్రః
(4) ర్ృవ ను్వం

Code
147. Find the true statement:
(1) mass of the substance depends on ' $g$ '
(2) ' $g$ ' value on the sun is less than ' $g$ ' value on the moon
(3) At a height equal to the radius of earth, $g=0$
(4) At the center of the earth, weight of the substance $=0$
(3ౖం) వాకిలో $న త ్ య ు ు ~: ~$


(3) భా వ్యాసర్రమునకు సమానమైన ఎఝ్తు జర్వ $g=0$
(4) ఛూ కేంర్రము వర్గ మన్తు భరము $=0$
148. Deodorant soaps contain
(1) free stearic acid
(2) $\mathrm{Na}^{+}$salt
(3) $K^{+}$salt
(4) 3, 4, 5 tribromo salicylanilide

(1) స్వేచ్ స్టీయరిక్ ఆో్గుకు
(2) $\mathrm{Na}^{+}$లవలము
(3) $\mathrm{K}^{+}$eవలైుు
(4) $3,4,5$ ట్ర్రోమా సారితशలుౖడు
149. Chromophore in (O) $-\mathrm{N}=\mathrm{N}-\mathrm{O}-\mathrm{NH}_{2}$ is

$\qquad$
(1) $-\mathrm{NH}_{2}$
(3) $-\mathrm{O}-\mathrm{NH}_{2}$
(2) $N=N$
(4) $O-N$
150.


This structure indicates the $\qquad$
(1) Aspirin
(2) Paracetamol
(3) Brufen
(4) Insulin


(1) ఎట్రిన్న్
(2) సారానిమోర్
(3) ఱూఫన్
(4) $\geqslant \sim ్ య 05$


[^0]:    [20]

