«eÁ£ÀªÀÄzÀÞ I Model question paper - I

PART - I

PHYSICS & CHEMISTRY

¨ËvÀÁ¸ÀªÀÄvÀÄgÁ¸ÁAiÀÄ£ÀÁ¸À

For Each multiple choice question four alternatives are given. Out of these alternatives choose the correct answer and write the answer in the space provided

1. Due to heavy traffic near the school the department of traffic police wants to install automatic traffic lights. This can be done by using the Principle of 1 x 10 = 10
   a) Raman effect b) Radiography c)Holography d) Photoelectric effect
   ±Á¯AiÄ §½ ¸AZÁg z l u eÁ¹ EgÄªÀ¼z jAz ¸AZÁj ¥ÆÃ°¸gÄ ¸AiÄAZÁ°v ¢Ã¥U¼£Ä ºÁP®Ä Ea¼¹zÁg. Ez£Ä ªiÁq®Ä G¥AiÆÃV¸Ä ª vv
   C) gÁªi£ï ¥juÁªÄ D) bÁAiiÁ ©A§£ E) ºÁ¯ÆÃUæe F) zÄw «zÄvï ¥juÁªÄ

2. Water is to be sterilized for drinking purpose without using any chemicals this can be done by using
   a) u v rays b) visible light c) short wave length radio waves d) long wave length Radio waves
   gÁ¸ÁAiÄ¤P ª¸ÄU¼£Ä G¥AiÆÃV¸zÃ ¤Ãg£Ä ªAz¼PÁgP QæeÄU M¼¥r¹ PÄrAiÄÄª ¤Ãg£Ä ¥qAiÄ¨ÃPÁVz EzPÁV §¼¸Äª¼zÄ
   C) £Ãg¼ÁwÃv Qgt U¼Ä D) UÆÃZg ¨¼PÄ E) Prª vgAUzÆgª¼ gÃrAiÆÃ vgAUU¼Ä
   F) ºZÄ vgAUzÆgª¼ gÃrAiÆÃ vgAUU¼Ä

3. In a heat engine the linear motion of the Piston is converted into rotation by the component
   a) spark plug b) Carburettor c) Crank shaft d) Fuel injection pump
   ಉಷ್ಣ ಇಂಜಿನ್‌ನಲ್ಲಿ ಕೊಂತದ (ಪಿಸ್ಟನ್) ರೇಖೀಯ ಚಲನೆಯನ್ನು ಭ್ರಮಣೆಯಾಗಿ ಪರಿವರ್ತಿಸುವುದು
   C) ¸ÁPïð ¥Uï D) PÁ§ðgÃlgï E) ªPæAq F) EAz£ EAdP£ï ¥A¥ï

4. An engineer wants to design an engine to convert 800KJ of heat into 840KJ of useful mechanical work. The correct statement related to the above engine is that it
   a) is less efficient b) is more efficient c) cannot be designed d) is 100% efficient
   M§ EAf¤AiÄgï £Ä 800 KJ ±ÁRªÄ 840 KJ G¥AiÄÄP AiiÁAwæeP®¸ªÁV ¥jªwð¸ÄªAvº EAf£Ä «£Á¸UÆ½¸®Ä Ea¼¸ÄvÁ£. F EAf¤U ¸A§A¢¹zAvº ¸jAiiÁz ºÃ½P
   C) EzÄ Prª Ä zPv ºÆA¢z D) EzÄ ºZÄ zPv ºÆA¢z E) Ez£Ä «£Á¸UÆ½¸®Ä ¸Áz¼«®
   ಈ) ಇದು ಶೇ.100 ರಷ್ಟು ದಕ್ಷತೆ ಹೊಂದಿದೆ

5. An astrophysics Scientist observes that galaxy 'A' is more red shifted than galaxy 'B'. The conclusion that can be drawn from this is that
   a) the velocity of 'A' is more than 'B' b) the velocity of 'B' is more than 'A'
   c) both the galaxies have equal velocity d) both the galaxies are at rest.
   M§ RUÆÃ¼ ¨Ëv «eÁ¤AiÄÄ U®Q 'J' J£Ä¼ªÄzÄ U®Q '©' VAv ºZÄ PA¥Ä ¥®l ºÆA¢gÄªÄz£Ä UªÄ¤¸ÄvÁ£. EzjAz P¼UÆ¼§ºÄzÁz wÃªiÁð£ªÃ£Azg
   C) 'J' £ ªÃUª¼ '©' VAv ºZÄ D) '©' £ ªÃUª¼ 'J' VAv ºZÄ
   E) Jgqæ U®QU¼ ªÃUª¼ ¸ªÄ F) Jgqæ U®QU¼Ä ¤±® ¹wAiÄ°z.

6. In an nuclear reactor, the number of cadmium rods used are less than the required number. Then one of the possibilities is
   a) the reactor may explode
   b) the chain reaction stops
   c) number of fissions decrease
   d) the number of neutrons decrease
   MAzÄ ¨ÉfP QæèiÁPÁjAiÄ° §¼¹z PÁ¯ÁiÄA ¸g¼ÄU¼ ¸ASÉAiÄÄ CUv¸QAv PrªÄ Ez. EzjAz DUÄ§ºÄzÁz MAzÄ ¸Áz¸v.
   C) QæèiÁPÁjAiÄÄ ¸ÆÃn¸§ºÄzÄ
   D) ¸g¥½ QæèiÄ ¤AvÄ ºÆÃUÄª¸zÄ
   E) «z¼£U¼ ¸AS¸ PrªÄAiiÁUÄª¸zÄ
   F) £Æ¸mÁæèU¼ ¸AS¸ PrªÄAiiÁUÄª¸zÄ.

7. If emission test is required for an L.P.G run auto rickshaw, the availability of oxygen in moles for combustion of one mole of butane is
   a) less than 5
   b) between 8.5 and 9.5
   c) between 9.5 and 10.5
   d) more than 10.5
   zæev ¥mÆãèAiÄA¤Az PÁAiÄð ¤ªð»¸Äª CmÆÃjPÁU ºÆg¸Æ¸Äª ¥jÃP ¨ÃPÁzg 1 ªÆÃ¯ï §Æ¸mÃ£ zº£ QæèiÄU zÆgPÄª DªÄd£P ªÆÃ¯ïU¼°
   C) 5 VAv PrªÄ
   D) 8.5 jAz 9.5
   E) 9.5 jAz 10.5
   F) 10.5 QAv ºZÄ

8. In a soap industry the chemist forgets to add sodium chloride during the manufacture of soap, the possible effect is
   a) soap cannot be easily separated
   b) chemical composition of soap changes
   c) soap will not get required colour
   d) the solubility of soap increases.
   ¸Á§Æ£Ä PÁSÁð£Aiħ° gÁ¸ÁAiÄ¤P vdgÄ ¸Á§Æ£Ä£Ä vAiiÁj¸ÄªÁU ¸ÆÃrAiÄA PÆÃg¸qï ¸Ãj¸Äª¸z£Ä ªÄgvÄ ©qÄvÁ£. Ezg ¥juÁªÄ¢AzÁUÄª ¸Áz¸v
   C) ¸Á§Æ£Ä ¸Ä®¨ªÁV ¥æèQ¸®Ä DUÄª¸¢®
   C) ¸Á§Æ¤£ gÁ¸ÁAiÄ¤P ¸AAiÆÃd£ §z¯ÁUÄvz.
   E) ¸Á§Æ¤U ¨ÃPÁz §t §gÄª¸¢®
   F) ¸Á§Æ£Ä «°Ã£ªÁUÄª¸zÄ ºZÁUÄvz.

9. Borosilicate glass is used to make school laboratory equipments because it
   a) is highly transparent
   b) with stands sudden changes in the temperature and transparent
   c) has high refractive index
   d) absorbs radiation
   ±Á¯Aiħ ¥æèÆÃUÁ®AiÄz° G¥Pgt U¼£Ä ªiÁq®Ä ¨ÆÃgÆÃ¹°PÃmï UÁd£Ä §¼¸ÄvÁg KPAzg EzÄ
   C) ºZÄ ¥Ágz±ðP
   D) vÁ¥z Kj½vU¼£Ä vqAiÄÄvz ªÄvÄ ¥Ágz±ðP
   E) ºZÄ ªQæèªÄ£ ¸ÆZ¸APª£Ä ºÆA¢z
   F) «Qgt U¼£Ä »ÃjPÆ¼Ävz.

10. Using sodium hydroxide as one of the raw materials it is possible to prepare
    a) soaps and detergents
    b) cement and ceramics
    c) glass and plastics
    d) cement and glass
    ¸ÆÃrAiÄA º¸qÁæèï£Ä RZÁª¸ÄU¼° MAzÁV §¼¹ vAiiÁj¸®Ä ¸Áz¸ªÁUÄª¸zÄ
    C) ¸Á§Æ£ÄU¼Ä ªÄvÄ ªiÁdðPU¼Ä
    D) ¹ªÄAmï ªÄvÄ ¹gÁ«ÄPï
    E) UÁdÄ ªÄvÄ ¥Á¹Pï U¼Ä
    F) ¹ªÄAmï ªÄvÄ UÁdÄ.

Fill in the blanks with suitable terms
¸ÆP ¥zU½Az ©ngÄª ¸¼U¼£Ä ¨wð ªiÁr

11. A p-n junction allows current to pass in one direction this is called_____ 1 x 3 = 3
p-n dAP£ï «zÁºvï £Á® MAzÀ £Ãgz° ªiÁvæº jAiÀ®Ä ©qÀvz. F QæªÀiÁAiÀ ° ¸gÀ ____ .

12. Rader gun works on the principle of_____
gÁqÁgï U£ï P®¸ ªiÁqÀª vv _____.

13. The device which converts light energy into electrical energy is_____
¨¼Q£ ±QAiÀ£Á® «zÁºvï ±QAiiÁV ¥j ªwð¸Àª ¸Áz£ _____

14. Match the following/°ÆA¢¹ §g¬Äj: 1 x 4 = 4

A	B
1. Natural Gas/£É¸VðP C¤®	L.P.G/zæev ¥æÆÃæ¢AiÄA C¤®
2. Butane/§ÆmÃ£ï	explosives/¸ÆÃlPU¼Ä
3. Benzene/¨£f£ï	to detect leakage of L.P.G/zæev ¥æÆÃæ¢AiÄA C¤® ¸ÆÃjP ¥v °ZÀªÉzÀ
4. Toluene/mÁ°Ã£ï	emission test/°Æg¸Æ¸Ä«P ¥jÃP
	Carbon black/PÁ§ð£ï ªÄ¹
	Perfumes/¸ÄªÁ¹P
	Exhaust gas/ನಿಷ್ಕಾಸ ಅನಿಲ .

15. A cyclist going round a curve leans towards the centre of the curve. Give reason 1 x 6 = 6
¸ÉP¯ï ¸ªÁg£Ä wgÄ«£° °ÆÃUÄªÁU wgÄ«£ PÃAzæPqU ªÁ®ÄvÁ£. EzP PÁgt PÆr.

16. What is a centrifugal governer?
¸Anæ¥Éeï ¤AiÄAvÆeJAzgÃ£Ä ?

17. What is the colour of the star Betelgeuse?
©Ãl¯ï VÃ¸ï £Pvæ§tªÃ£Ä ?

18. Mention the purpose of using a plane glass sheet in a solar cooker?
¸Ëg CrU M¯Ai°° UÁf£ ªÄÄZ¼ª£Á® §¼¸Äª GzÀ±ª£Á® w½¹.

19. How does the pressure cooker help in saving energy?
¥æegï PÄPgï ±QAiÀ£Á® G½vÁAiÄ ªiÁq®Ä °ÃU ¸°ÁAiÄPÁjAiiÁVz ?

20. Write the balnced chemical equation of the reaction between sodium carbonate and calcium chloride
¸ÆÃrAiÄA PÁ¨ÆÃð£ÃmïªÄvÄ PÁ°AiÄA PÆÃg¸qïU¼ £qÀ«£ gÁ¸ÁAiÄ¤P QæªÀiÁ ¸ªÄvÆV¹z gÁ¸ÁAiÄ¤P ¸«ÄÃPgtª£Á® §g¬Äj.

21. Write any two factors on which the induced EMF depends 2 x 9 = 18
¥ÀæªÉv «zÁºvï ZÁ®P §® Cª®A©¹gÀª AiiÁª¸ÀzÁzgÆ JgqÄ CA±U¼£Á® w½¹.

22. Draw a neat sketch of D.C. Dynamo
r.¹. q¸É£ªÆÃz CAzªÁz avæ£Á® §g¬Äj.

23. What is electromagnetic spectrum?

a) Name the electromagnetic radiations which has
   1. the lowest frequency and
   2. lowest wavelength

«zÀÄvï PÁAwÃAiÄ gÆÃ»v JAzgÃ£Ä ?

C) CvÀAv Pr ªÄ DªÀw ªÄvÄ

D) CvÀAv Pr ªÄ vgAUzÆg EgÄª«zÄvï PÁAwÃAiÄ «QgtU¼£Äß º¸j¹.

24. Draw a neat sketch to show the exhaust stroke of an external combustion engine
ಬಹಿರ್ದಹನ ಇಂಜಿನ್ನಿನ "ನಿಷ್ಕಾಸ ಹೊಡೆತ" ವನ್ನು ತೋರಿಸುವ ಅಂದವಾದ ಚಿತ್ರವನ್ನು ಬರೆಯಿರಿ.

25. Give scientific reasons for the following
E ªÀU½U ªÀeÁ¤P PÁgt PÆr.

a) Iron articles are electroplated with chromium

C) P©tz ª¸ÄU¼£Äß PÆÃæ«ÄAiÄA¤Az «zÄvï ¯Â¥£ ªiÁqÄvÁg.

b) Calcium silicate is a protective layer for the molten iron in the blast furnace

D) HzÄ PÄ®ÄªÄAiÄ° zæv P©tPÀ PÁ°AiÄA ¹°PÃmï gPuÁ PªZªÁVgÄvz.

c) Copper is not used to prepare hydrogen in the laboratory

E) ¥æiÆÃU ±Á¯AiÄ° ºÀqÆÃæd£ï C¤®ª£Äß vAiiÁj¸®Ä vÁªÄæ£Äß §¼¸ÄªÀ¢®.

d) Ore of copper is not concentrated by hydraulic washing

F) ºjAiÄÄª ¤Ãj¤Az vÆ¼AiÄÄªÀzg ªÄÆ®P vÁªÄæ C¢g£Äß ¸Ágª¢ð¸ÄªÀ¢®.

26. what is the role of magnesium and dilute hydrochloric acid in the preparation of silicon
¹°PÁ£ï vAiiÁjPAi° ªÄVÃ¶AiÄA ªÄvÄ zÄ§ð® ºÀqÆÃæÆÃjPï DªÄz ¥ÁvæÃ£Ä?

27. write the steps involved in recycling plastics.
¥Á¹Pï £ ¥Ä£gï §¼PAi° M¼UÆArgÄª ºAvU¼£Äß §g¬Äj.

28. Name two types of hardness in water. On what principle can hardness of water be removed?
¤Ãj£ Uq¸Äv£z Jgq« «zU¼£Äß º¸j¹? AiiÁª vvz ªÄÃ¯ ¤Ãj£ Uq¸Äv£ª£Äß ¤ªÁgu ªiÁq¯ÁUÄvz?

29. Draw a circuit symbol of each of the following
a) Forward biased diode b) transistors of n-p-n

F P¼PAq ¥æÀiÆAzPÆ ªÄAq® ¸APÃvª£Äß §g¬Äj.

J. ªÄÄ£Àq - M®ÄªÄ - qAiÆÃqï ©. n-p-n mÁæ¸gï

30. State the universal law of gravitation . prepare it by a mathematical equation 3 x 4 = 12
«± ªÁ¦ UÄgÄv ¤AiÄªÄª£Äß ¥æÀÁ¢¹ Ez£Äß MAzÄ ¸«ÄÃPgtz gÆ¥z° ¤gÆ¦¹.

31. What is impure spectrum? Why is Raman scattering called incoherent and Rayleigh scattering called coherent scattering. On what basis did Raman give satisfactory explanation of incoherent scattering?
C±Äz gÆÃ»v JAzgÃ£Ä? gÁªÄ£ï ZzjP JAzÄ ªÄvÄ gÁ¯ ZzjPAiÄ£Äß ¸A¸P ZzjP J£ÄßvÁg KP? C¸A¸P ZzjPU gÁªÄ£ïgÄ AiiÁª DzÁgz ªÄ¯ ¸ª¥ðPªÁz ªÁ¸SÀAiÄ£Äß ¤Ãrzg?

32. If the present mass of a radio active element is 3.125 gm and its half life period is 8 days. What was its initial mass before 40 days.

ಒಂದು ವಿಕಿರಣ ಪಟು ಧಾತುವಿನ ಅರ್ಧಾಯುಷ್ಯವು 8 ದಿನಗಳು. ಈಗ ಅಳತೆ ಮಾಡಿದಾದ ಆ ಧಾತು"ನ ದ್ರವ್ಯ ರಾಶಿ 3.125 ಗ್ರಾಂ
Ez. 40 ¢£U¼ »Az EzÃ zÁvÄ«£ zÀægÁ² K¶¢vÄ?

33. Draw a neat diagram of the device that converts nuclear energy into electrical energy.
¨ÉfP ±QAiÄ£Ä« «zÄvï ±QAiiÁV ¥jªwð¸Äª ¸Áz£z CAzªÁz avæ£Ä« §gÄj

34. State the law of conservation of momentum. "The escape velocity on the earth is 11.2km/s" what does it mean? How are orbital and escape velocities related to one another? At what height geostationary statellite is launched. 4 x 3 = 12
¸AªÃU ¸AgPuÁ vvª£Ä« ¥æ¥Á¢¹ ¨Æ«ÄAiÄ ªÄÃ¯ «ªÆÃZ£Á ªÃU ¸PArU 11.2 Q.«ÄÃ. Ezg Cxðª£Ä?
ವಿಮೋಚನಾ ವೇಗವು ಕಕ್ಷಾ ವೇಗದೊಡನೆ ಹೇಗೆ ಸಂಬಂಧವನ್ನು ಹೊಂದಿದೆ? ಭೂಸ್ಥಿರ ಉಪಗ್ರಹವನ್ನು ಎಷ್ಟು ಎತ್ತರದಲ್ಲಿ ಸ್ಥಾಪಿಸಬೇಕು?

35 How does a protostar attain the steady state? What is a neutron star?
D¢ £Pvæ¹g¹wAiÄ£Ä« ºÃU v®Å¥Ävz? £ÆmÁæï £PvæJAzgÃ£Ä?

36. Draw a neat diagram of each of the following
1. Blast furnace used to extract iron 2. Electrolytic refining of copper.
Eª¼° ¥æAiÆAzPÆ CAzªÁz avæ£Ä« §gÄj.
1. P©tz Gzgtz° §¼¸Äª HzÄ PÄ®ÄªÄ 2. ತಾಮ್ರದ ವಿದ್ಯುತ್ ವಿಶ್ಲೇಷಣಾ ಶುದ್ಧೀಕರಣ

BIOLOGY
fÁªÆÁ¸À

I. FOUR ALTERNATIVES ARE GIVEN TO EACH STATEMENT CHOOSE THE CORRECT ANSWER AND WRITE IN THE SPACE PROVIDED
¥æAiÆAzÄ ªÁPÆ £Á®Ä DAiÄU¼£Ä« ¤Ãq¯ÁVz. ¸j Gvgª£Ä« DAiÄ ªiÁr PÆngÄª ¸¼z®° §g¬Äj.

1. One of the following statements is true. 1 x 5 = 5
a) Ragi plant has parallel venation and cotyledon raises above the soil during germination.
b) Ragi plant has parallel venation and cotyledon remains below the soil during germination.
c) Ragi plant has reticulate venation and cotyledon remains below the soil during germination.
d) Ragi plant has reticulate venation and cotyledon raise above the soil during germination.
F P¼V£ª¼° MAzÄ ªÁP ¸jAiiÁVz
C) gÁV ¸¸ª ¸ª£ÁAvg £Á¼ «£Á¸ ºÆA¢zÄ, ©Ãd ªÆ¼AiÄÄªÁU ©Ãdz¼ ¨Æ¸gz ªÄÃ¯ÁUP §gÄvz.
D) gÁV ¸¸ª ¸ª£ÁAvg £Á¼ «£Á¸ ºÆA¢zÄ, ©Ãd ªÆ¼AiÄÄªÁU ©Ãdz¼ ¨Æ¸gz P¼U G½AiÄÄvz..
E) gÁV ¸¸ª eÁ®§Az £Á¼ «£Á¸ ºÆA¢zÄ, ©Ãd ªÆ¼AiÄÄªÁU ©Ãdz¼ ¨Æ¸gz P¼U G½AiÄÄvz..
F) gÁV ¸¸ª eÁ®§Az £Á¼ «£Á¸ ºÆA¢zÄ, ©Ãd ªÆ¼AiÄÄªÁU ©Ãdz¼ ¨Æ¸gz ªÄÃ¯ÁUP §gÄvz.

2. A person is advised not to donate blood after being tested for ELISA, because he is infected by
a) HIV B) HBV c) HSV d) SIV
M§ ª¸QAiÄÄ 'J°¸Á' ¥jÃPU M¼¥l £Avg Dv£Ä gPzÁ£ ªiÁqzAv ¸®º ¤Ãq¯ÁVz. KPAzg Cª¤U vU°gÄª ¸ÆÃAPÄ
C. ºZï L « D.) ºZï.©.« E. ºZï. J¸ï. «. F. J¸ï.L.«.

3. After being pricked by a thorn, a boy withdraws his leg immediately. The center of this action is
a) Cerebrum b) Cerebellum c) Spinalcord d) Hypothallamus
ºÄqÄU£Æ§ ªÄÄ¼Ä vÄ½z vPt PÁ®£Ä »AzP J¼zÄPÆ¼ÄvÁ£. F QæªÄAiÄ PÃAzæ
ಅ) ಮಹಾಮಸ್ತಿಷ್ಕ ಆ) ಅನುಮಸ್ತಿಷ್ಕ ಇ) ಮಿದುಳು ಬಳ್ಳಿ ಈ) ಹೈಪೋಥಲಾಮಸ್

4. Vegetative reproduction found in multicellular alage is a natural process of
a) Cloning b) DNA finger printing c) Genetic engineering d) Recombining DNA
§ºÄPÆÃ²AiÄ ±ÉªÀ®U¼° £qAiÄÄª PÁAiÄd jÃwAiÄ ¸AvÁ£ÆÃvw ¥ÀæªÄAiÄÄ ¸Á¨Á«P
C) PÆÃ¤AUï D) r.J£ï.J. ¨g¼ZÄ E) v½ vAvæÁ£ F) ¥ÀgÏ ¸AAiÆÃfv r.J£ï.J.

5. Blood report of a 40 year old person indicates high glucose level. He may be at risk of getting.
a) Glaucoma b) Cataract c) Astigmatism d) Retinopathy
ನಲವತ್ತು ವರ್ಷದ ವ್ಯಕ್ತಿಯ ರಕ್ತ ಪರೀಕ್ಷೆಯಲ್ಲಿ ಗ್ಲೂಕೋಸ್ ನ ಪ್ರಮಾಣವು ಹೆಚ್ಚಾಗಿರುವುದು ಕಂಡು ಬರುತ್ತದೆ. ಆತ ಈ ರೋಗಕ್ಕೆ vÀvÁUÃª ¸Ázv ðZÁVjvz.
ಅ) ಗ್ಲಾಕೋಮಾ ಆ) ಮೋತಿಬಿಂದು ಇ) ಅಸಮ ದೃಷ್ಟಿದೋಷ ಈ) ರೆಟಿನೋಪತಿ

6. MATCH PART 'A' WITH PART 'B' : 1 x 4 = 4

A	B
1. Areolar tissue KjAiÆÃ¯Ágï CAUÁA±	a) Provides frame work to Spleen UÄ®P ZËPl£Ä MzV¸Ävz.
2. Ligament vAvÄPlÄ	b) attaches muscles to bones ¸ÁÄAiÄÄU¼£Ä ªÄÆ¼U½U §A¢¸Ävz.
3. Adipose tissue Cr¥ÆÃ¸ï CAUÁA±	c) digests toxic substances £Adä ¥zÁxðU¼£Ä fÃtð¸Ävz.
4. Tendones ¸ÁÄAiÄÄ gdÄ	d) provides frame work to entire body ErÃ zÃºP ZËPl£Ä MzV¸Ävz.
	e) attaches one bone to another MAzÄ ªÄÆ¼AiÄ£Ä EÆÄAzÄ ªÄÆ¼U §A¢¸Ävz.
	f) avoids friction in joints ಕೀಲುಗಳಲ್ಲಿ ಘರ್ಷಣೆಯನ್ನು ತಪ್ಪಿಸುತ್ತದೆ.
	g) acts as a shock absorber DWÁv »ÃgPzAv ªwð¸Ävz.

ANSWER THE FOLLOWING QUESTIONS IN A WORD OR A SENTENCE
F P¼V£ ¥ÀæªU½U MAzÄ ¥z Cxª MAzÄ ªÁPÉz° Gvj¹

7. What is biotechnology ? 1 x 4 = 4
eÉ«P vAvæÁ£ JAzgÃ£Ä?

8. Which important characteristic feature of selaginella depicts that it is highly evolved than Riccia ?
¸¯Áf£¯Á jQAiiÁVAv ºZÄ «PÁ¸UÆArz J£ÄªÉz£Ä ¥ÀgPj¸Äª ¥ÀæªÄR UÄt®Pt AiiÁªÉzÄ?

9. Ramya experiences numbness in herlimbs due to accumulation of watery fluid, name the disease and adulterant that has caused it.
gªÄ¼ PÉPÁ®ÄU¼° ¤Ãj£Avº zÀæ ±ÃRgu AiiÁVgÄªÉzjAz eÆÃªÄ »r¢gÄvz. C¼Ä §¼®ÄwgÄª gÆÃU

AiiÁªÀzÄ? EzP PÁgt ªÁz P®¨gP ª¸ÄªÉ º¸j¹?

10. Why is goiter called an endemic disease ?
U¼UAq gÆÃUªÉ ¸Á¤P ªÁ¢ JAzÄ KP PgAiÄÄvÁg?

ANSWER THE FOLLOWING IN 2 OR 3 SENTERNCES EACH
Jgq ªÄvÄ ªÄÆgÄ ªÁP¼U¼° Gvj¹

11. How are ear and throat connected ? What is its advantage ? 2 x 6 = 12
Q« ªÄvÄ UAl®Ä ºÃU ¸A¥Pð ºÆA¢ª? EzjAzÁUÄª ¥æÆÃd£ªÃ£Ä?

12. Raju resides in an area where not much of lichens are found. List any four health hazards he may be suffering from
P®Ä ºÆU¼Ä ºZÁV E®z ¥æÃ±z° gÁdÄ ªÁ¹¸ÄwzÁ£. C ª£Ä §¼®Äwg§ºÄzÁz £Á®Ä DgÆÃU¼ ¸ª¸¼U¼£ÉÃ ¥n aiÁr.

13. Explain the structure of HIV in 20of 3 sentences.
ºZï L « gZ£Aiä£ÉÃ Jgq Cxª Ä ªÄÆgÄ ªÁP¼U¼° «ªj¹.

14. Mention one function of the following.
a) Sclereids b) Companion cells
P¼PAqª¼U¼ MAzÄ PÁAiÄðª£Ä w½¹
J) ¹÷g¢qï ©) ¸AUÁw fÃªPÆÃ±

15. How can vanaspathi in ghee be detected ?
vÄ¥z° ª£¸w EgÄ«PAiä£ÉÃ ºÃU ¥v ºZ§ºÄª¼zÄ?

16. A student has uprooted a weed plant in the school garden. The student infers that it is a dicot plant. Support the inference.
M§ «zÁyðAiÄÄ v£ ±Á¯Á vÆÃlz° MAzÄ P¼ ¸¸¼ª£É ¨ÃgÄ ¸ªÄÃv QvÄ £ÆÃq¯ÁV CzÄ ¢z¼ ¸¸¼AzÄ wÃªiÁð£P §gÄª¼zÁzg C wÃªiÁð£P ¤ªÄ ¥Ä¶ÃPgt ¤Ãr.

ANSWER THE FOLLOWING
P¼V£ ¥æU½U Gvj¹.

17. How does electrochemical fixation take place during nitrogen cycle ? 3 x 2 = 6
£¼mÆæl£ï ZPæ° «zÄvï gÁ¸ÁAiÄ¤P ¹jÃPgt ª¼ ºÃU GAmÁUÄvz?

18. Draw a diagram to show external features of fish and label any two parts
«ÄÃ¤£ ¨Á°¼ gZ£Aiä£ÉÃ vÆÃj¸Äª avæ£É §gzÄ AiiÁª¼zÁzgÆ Jgq ¨ÁUU¼£ÉÃ UÄgÄw¹.

19. Draw a diagram of vertical section of human brain and label any four parts. 4 x 1 = 4
ªiÁ£ª£ «ÄzÄ½£ ¤Ã¼bÃz £ÆÃlz avæ£É §gzÄ AiiÁª¼zÁzgÆ £Á®Ä ¨ÁUU¼£ÉÃ UÄgÄw¹.

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Model question paper - II

PART - I

PHYSICS & CHEMISTRY

¨ÉvÀÁ¸ÀªÀvÀÄgÁ¸ÁAiÀÄ£ÀÁ¸À

For Each multiple choice question four alternatives are given. Out of these alternatives choose the correct answer and write the answer in the space provided 1 x 10 = 10

1. M§ CmÆÃªÆ¨É¯ï CAUr ¬ÄAz v£ ªÁº£ªÃ£ zÄg¹ ªiÁq®Ä Qr¨uAiÄ£ RjÃ¢¸ÄvÁ£.
   D ªQ ºÆA¢gÄª ªÁº£z°gÄª JAf£ï
   1) ¥mÆÃæ¯ï JAf£ï 2) r¹Ã¯ï JAf£ï
   3) §»zðº£ JAf£ï 4) CAvzðº£ JAf£ï
   A person buys a spark plug from a automobile shop. The engine present in his vehicle is
   (1) Petrol engine (2) Diesel engine
   (3)External combustion engine (4) Internal combustion engine.

2. ¸Á§Æ£Ä vAiiÁjPAiÄ° G¥ Gv£¢Az ¸Á§Æ£Ä£Ã¨Ã¥ðr¸®Ä §¼¸Äª ª¸Ä
   a) ¸ÆÃrAiÄªiï º¦qÁæ¦ qï b) ¸ÆÃrAiÄªiï PÆÃg¦qï
   c) ¥Áæ¦PÆ§Ä d) V¸gÁ¯ï
   The substance used to separate the soap from the by product during saponification is
   (1) Sodium hydroxide (2) Sodium chloride
   (3) Animal fat (4) Glycerol

3. rÃ¸¯ï JAf£ï£° rÃ¸¯ï E£ïePï DUÄª¦zÄ
   a) ¸A¦Ãq£Á ºÆqvz PÆ£AiÄ° b) ¸A¦Ãq£Á ºÆqvz DgA¨z°
   c) ¨ÄQºÆqvz DgA¨z° d) ¨ÄQºÆqvz PÆ£AiÄ°
   In diesel engine diesel is injected into the cylinder
   (1) At the end of compression stroke (2) At the beginning of compression stroke
   (3) At the beginning of intake stroke (4) At the end of intake stroke

4. P¦vP gvÀU¼ÆA¢U «Ä±æáVgÄª £¦¸VðP gvÀU¼£Ã¥v ªiÁr ¨Ã¥ðr¸®Ä G¥0iÆÃV¸§ºÄzÁz «zÄvï PÁAwÃAiÄ vgAUz Dª¦w
   1) ¸ÆP÷¦ vgAUz Dª¦wVAv Prª Eg¨ÃPÄ 2) z¦UÆÃZg ¨¼Q£ Dª¦wVAv Prª Eg¨ÃPÄ.
   3) z¦UÆÃZg ¨¼QVAv ºZÄ ªÄvÄ JPï-Qgtz Dª¦wVAv Prª Eg¨ÃPÄ
   4) £Ãg¼ÁwÃv QgtQ¦Av Prª Dª¦w Eg¨ÃPÄ
   The frequency of electromagnetic radiation used to detect & separate the real gems Which are mixed with artificial gems.
   (1) Should be less than that of microwaves. (2) Should be less than that of visible light.
   (3) Should be greater than that of visible light & less than that of X-rays
   (4) Less than that of ultraviolet waves

5. QæÃmï DlUÁg ²æêÁAv£Ä J¸z ZAr£ ªÃUª£Ä C¼AiÄ®Ä G¥AiÆÃV¸§ºÄzÁz ¸Áz£
a) SONAR b) gÃqÁgï U£ï c) ECG d) RADAR
The device used to find the velocity of a ball bowled by cricketer Srishanth
(1) SONAR (2) RADAR gun (3) ECG (4) RADAR

6. M§£ §mAiÄ°gÄª D«ÄÃAiÄ P¯AiÄ£Ä vUAiÄ®Ä EzÄ ¸ÆP
a) ¸ÆÃrAiÄªïï ¥Á«ÄmÃmï b) ¸ÆÃrAiÄªïï N°AiÄÃmï
c) ¸ÆÃrAiÄªïï qÄq¸É¯ï ¸¯Ãmï d) ¸ÆÃrAiÄªïï ¹ÃAiÄgÃmï
Which of the following is used to remove acidic stain on clothes
(1) Sodium palmitate (2) Sodium oleate (3) Sodium dodecyl sulphate (4) Sodium stearate

7. ¨ÉfP «zÄvï ¸ÁªgzÀ ¨ÆgÁ£ï£ ¸g¼ÄU¼ PÆgv GAmÁzg DUÄª ¥juÁªÄ
1) QæêiÁPÁj ¸ÆÃl¸Ävz 2) ¨ÉfP QæêÄ ¤®Ävz
3) U¨ð zæ¸Ävz 4) «zÄvï Prª Gvw AiiÁUÄvz
In a nuclear power plant the scarcity of boron rods results in
(1) Bursting of reactor (2) Nuclear reaction is completely stopped
(3) Melting of core (4) Electricity generation decreases

8. ªÄ¸Ægz vAiiÁjPAiÄ° ¹Ã¸z UÁd£Ä G¥AiÆÃV¸®Ä PÁgt
1) CvÄZ ¥Ágz±ðPªÁVgÄªÀzÄ ªÄvÄ ºa£ ªQæêª£ ¸ÆZÀAP EgÄªÀzÄ
2) ¨ÉfP «Qgt »ÃgÄªÀzÄ ªÄvÄ CvÄZ ¥Ágz±ðPªÁVgÄªÀzÄ
3) ºa£ ªQæêª£ ¸ÆZÀAP EgÄªÀzÄ ªÄvÄ¨ÉfP «Qgt »ÃgÄªÀzÄ
4) ºa£ Mvqª£Ä vqAiÄÄªÀzÄ ªÄvÄ CvÄZ ¥Ágz±ðPªÁVgÄªÀzÄ
The reason for using lead glass in the preparation of lenses is ,it is
(1) Highly transparent and has high refractive index
(2) Absorbs radiation and highly transparent
(3) Has high refractive index and absorbs radiation
(4) Withstands high pressure and highly transparent

9. ZAzæêiÁ£-1 P¼ ¤zÃð±£ PÆq®Ä G¥AiÆÃV¹z «Qgt
1) X-Qgt 2) CªPA¥À Qgt 3) £Ãg¼ÁwÃv Qgt 4) ¸ÆP÷vgAU
The electromagnetic radiation used to direct chandrayana-1 is
(1) X-ray (2) Infrared ray (3) Ultraviolet ray (4) Microwave

10. MAzÄ CUÁ¤ðPï ¸AAiÄÄP ª¸Ä«£ CtÄvÆP 78. Czg°gÄª ªÄÆ®ª¸ÄU¼Ä EAUÁ¯ ªÄvÄ d®d£P Dzg, Czg CtÄ¸Ævæ
a) C_4H_{10} b) C_6H_{14} c) C_6H_6 d) $C_{12}H_{26}$
The molecular weight of an organic compound is 78, the elements present in it are carbon and hydrogen ,then its molecular formula is
a) C_4H_{10} b) C_6H_{14} c) C_6H_6 d) $C_{12}H_{26}$

Fill in blanks/©l ¸¼ vÄA©¹j 1 x 3 = 3

11. MAzÄ ¯ÆÃºª£Ä PÁ¬Ä¹zÁU Czg gÆÃz ------ DUÄvz
When a metal is heated its resistance_____

12. ±¤AiÄ GAUÄg gZ£AiÄ£Ä w½AiÄ®Ä ¸Áz¦ªÁVgÄª¦zÄ _____ ¥juÁªÄ¢Az
The effect that helps us to know about rings of Saturn is _____

13. £Á®Ä º¦qÆãdl£ï ©ÃdU¼Ä ¸«Ä®£UÆAqÄ MAzÄ »Ã°Aiiªiï ©ÃdªÁV ±Q ©qÄUqAiiÁUÄª¦zÄ _____ ¸g¥½ QæÄAiÄ°
The chain reaction in which four hydrogen nuclei fuse into one helium nucleus with the liberation of energy is _____

14. ºÆA¢¹ §g.

A	B
1 J¯ï.¦.f/L.P.G	Fy Ã£ï/Ethane
2. ¹.J£ï.f/C.N.G	£Ãg ¸g¥t/Straight chain
3. L¸ÆÃ ¥AmÃ£ï/Iso pentane	Fx¦¯ï ªÄgïPÁ¦¥£ï/Ethyl mercaptan
4. ¥Á¦g¦£ï/Paraffine	C_nH_{2n+2}
	C_5H_{10}
	CH_4
	C_6H_6

F P¼V£ ¥æU½U MAzÄ ªÁP¦z¯ Gvj¹
Answer the following in One sentence 1 x 6 = 6

15. PÃAzÁæªÄÄR §® JAzgÃ£Ä ?
What is centripetal force?

16. ¸ªÄv® g¸AiÄ wgÄ«£° g¸Ai£Ä ºÃU ga¹gÄvÁg?
How does the roads are constructed at the bends on a level road?

17. ¸Ëg CrU M¯AiÄ ¥nUU UÁf£ ªÄÄZ¼«gÄvz. PÁgt PÆr.
Solar cooker is covered with a transparent plate of glass -Give reason.

18. º§®£ ¤AiÄªÄª£Ä ¤gÆ¦¹.
State Hubble's law.

19. eÁ£ÄªÁgÄU¼£Ä ¸ÁPÄª ª¦Q ±Q ©P¦l£Ä ¥jºj¸Ä¦zP¦ ¸A§Az¥lAv vUzÄPÆ¼§ºÄzÁz PæÄªÃ£Ä ?
Write the remedial measure that can be taken by a cattle raring person in order to minimize the energy crisis.

20. ¤Ãj£ Uq¸Äv£P¦ PÁgtªÁz AiiÁª¦zÁzgÆ 4 ®ªtU¼£Ä º¸j¹
Name any four salts that cause hardness of water.

F P¼V£ ¥æU½U Gvj¹.

21. r.¹. ªÆÃmÁgï£ avæ®r¹ ¨ÁUU¼£Ä º¸j¹. 2 x 9 = 18
Draw a neat labelled diagram of DC Dynamo.

22. J.¹. q£ªÆÃ ªÄvÀ r.¹ q£ªÆU¼ £qÄ«£ JgqÄ ªÀvÁ¸U¼£Ä¼ w½¹.
Write any two differences between AC Dynamo and DC Dynamo

23. F P¼V£ªÀU¼£Ä¼ º¸j¹.
1. ¥gªiÁtÄ«£ E_1 PPAiÄ°z E¯PÁ£ï E_2 PPU fVAiÄÄª QæeÄ
2. ¥gªiÁtÄ«£ E_2 PPAiÄ°z E¯PÁ£ï E_1 PPU fVAiÄÄª QæeÄ.
3. ¥gªiÁtÄU¼£Ä¼ PrªÄ ±Q ¹ìw¬ÄAz C¢P ±Q ¹ìwU Kj¸Äª ¥ÀæeÄ
4. ¥gªiÁtÄU¼£Ä¼ C¢P ±Q ¹ìwU Kj¸®Ä ¨Áºì ªÄÆ®U½Az ±QAiÄ£Ä¼ MzV¸Äª ¥ÀæeÄ
Name the following process
(1) In an atom, an electron from an orbit E_1 raises to an orbit E_2
(2) In an atom, an electron from an orbit E_2 jumps to an orbit E_1
(3) Atoms are raised from lower energy level to higher energy level
(4) Supplying energy from external source, to raise the atoms to higher energy level

24. gÃr0iÆÃ UÁæPz ¨ÁPï £P ©r¹
Draw the block diagram of a simple radio receiver.

25. ಬಹಿರ್ದಹನ ಯಂತ್ರದ ನಿಷ್ಕಾಸ ಹೊಡೆತವನ್ನು ಸೂಚಿಸುವ ಅಂದವಾದ ಚಿತ್ರವನ್ನು ಬಿಡಿಸಿರಿ.
Draw a sketch of external combustion engine showing exhaust stroke.

26. dªÄð£ï ¨½ ªÄvÀ PAZÄ E¼ªÀU¼£Ä¼ vAiiÁj¸®Ä ¨ÄPÁUÄª WlPU¼£Ä¼, F P¼V£ªÀU½Az Dj¹ §g¬Äj.
vÁªÄæ¸vÄ, vªg, ¤P¯ï
Choose the components used to prepare german silver and bronze,from the following
Copper, Zinc, Tin, Nickel.

27. ¹°PÁ£ï PÁ¨ðqï£Ä¼ ºÃU ¥qAiÄ§ºÄzÄ? ¸«ÄÃPgtzÆA¢U «ªj¹
How silicon carbide is obtained from silicon? Explain with the equation

28. ¥Á°ªÄjÃPgt JAzgÃ£Ä ?F P¼V£ªÀU¼ ªÆ£ÆÃªÄgïU¼£Ä¼ º¸j¹. 1) m¥Á£ï 2) £¯Á£ï
What is polymerization? Name the monomers of the following. (1) Teflon (2) Nylon.

29. Uq¸Ä ¤Ãj£ JgqÄ C£Á£ÄPÆ®U¼£Ä¼ w½¹
Write any two disadvantages of hard water.

F ¥ÀæU½U Gvg §g¬Äj/Answer the following questions

30. UæÃAiÄ Z®£U ¸A§A¢¹zAv P¥g£ ªÄÆgÄ ¤AiÄªÄU¼£Ä¼ §g¬Äj 3 x 4 = 12
State Kepler's three laws of planetary motion..

31. ¤ÃªÀ ªÉzÀgÁzg F P¼V£ ¸Az¨ðz°AiiÁª L¸ÆÃmÆÃ¥ï §¼¹ aQvAiÄ£Ä¼ PÆqÄ«j.
C) M§ ªÀQ PÁ£gï¤Az §¼Ä®ÄwzÁ£ D) M§£ xÉgÁ¬ÄqïUæy H¢PÆArzÄ, ¨¼ªtU PÄApvªÁVgÄvz
Imagine that you are a doctor by using which isotope you will treat.
(1) A person is suffering from Cancer (2) Growth of a person is retarded due to bulging of Thyroid gland

32. a) gÃSÁ¤¸gt gÆÃ»vª£Ä ºÃU ¥qAiÄ§ºÄzÄ ?
    b) gÁªÄ£ï ¥juÁªÄPÆ¸ gÁ¯ ZzÄgÄ«PUÆ EgÄª ªvÁ¸U¼Ã£Ä ?
    a) How can we obtain a line emission spectrum?
    b) Write the differences between Rayleigh scattering and Raman effect

F P¼V£ ¥æU½U Gvg §g¬Äj/Answer the following questions.

33. ¨ÉfP «zÄvï ¸Áªgz CAzªÁz avæ§gzÄ ¨ÁUU¼£Ä UÄgÄw¹j.
    Draw a neat labelled diagram of nuclear reactor and label the parts.

34. KPºAv gÁPmï£ §z®Ä §ºÄºAv gÁPmïU¼£Ä G¥UæU¼ GqÁªuAiÄ° G¥AiÆÃV¸®Ä PÁgtªÃ£Ä?
    gÁPÃmï£ GqÁªuAiÄ° UªÄ¤¸ ¨ÃPÁz 2 ªÉºÁjP CA±U¼ÁªÉª ? 4 x 3 = 12
    Why multistage rockets are used to launch the satellite instead of single stage rockets?
    Write any two practical aspects need to be considered while launching a rocket.

35. vgz UÄZ ªÄvÄ UÆÃ°AiÄ UÄZU½VgÄª 2 ªvÁ¸U¼£Ä w½¹. F P¼V£ªU¼£Ä «ªj¹
    1) ±Ãv PÄ§ 2) PA¥ÉzÉvÉ
    Write any two differences between open and globular star clusters. Explain the following
    (1) White dwarf (2) Red giant

36. H zÄPÄ®ÄªÄAiÄ CAzªÁz avæ®r¹ ¨ÁUU¼£Ä º¸j¹. PÄ®ÄªÄAiÄ ¨Ãg ¨Ãg Jvgz°gÄª vÁ¥ª£Ä UÄgÄw¹
    Draw the neat labelled diagram of blast furnace and mark temperature range at different heights inside the furnace .

fÃªÀÁ¸À

§ºÄ DAiÄAiÄ ¥æU¼Ä

For Each multiple choice question four alternatives are given. Out of these alternatives choose the correct answer and write the answer in the space provided 1 x 5 = 5

1) F ¸¸ªÉ DªÉv ©Ãd¸¸PÉ GzÁºguAiiÁVz
   1) ¸gÆÃUÉgÁ 2) ¥ÀÉ£ÃjAiiÁ 3) ¸ÉPÁ¸ï 4) zÁ¸ªÁ¼
   This plant is an example for Angiosperm
   a) Spyrogyra b) funaria c) cycas d) hibiscus.

2) F P¼V£ªU¼° vÄvÄð ¥j¹wAiÄ ºÁªÆÃð£ï EzÁVz
   1) E£ï¸Ä°£ï 2) xÉgÁQ£ï 3) Cræ°£ï 4) ¨¼ªtUAiÄ ºÁªÆÃð£ï
   Emergency harmone among the following is
   a) Insulin b) Thyroxin c) adrenaline d) Growth hormone.

3) '¥gÁªwðv ¥æQæÄ'AiÄ ¤Rg ªÁ¦AiÄÄ EzÁVgÄvz
   1) ¥æQæÄU vP ¥æÆÃz£ 2) ¥æÆÃz£U vP ¥æQæÄ-eÁ£Á£Ä¨ª C£Avg
   3) ¥æÆÃz£ ªÆz®Ä; eÁ£Ä¨ªz £Avg ¥æQæÄ 4) eÁ£Á£Ä¨ª ªÆz®Ä ¥æÆÃz£ ªÄvÄ ¥æQæÄ C£Avg

This is the scope of reflex action

a) stimulus to the response
b) response to the stimulus before getting experience
c) Stimulus first; response after getting experience
d) experience first, Stimulus and response afterwords

4 ºZï.L.«AiÄÄ gmÆãæ¦g¸ï DVgÄvz KPAzg

1) ºZï.L.«Aiħ j ª¸ïð mÁæQæ¥ï £qAiÄÄvz
2) ºZï.L.«Aiħ mÁæQæ¥ï £qAiÄÄvz
3) ºZï.L.«Aiħ j ª¸ïð mÁæQæ¥ï £qAiÄÄª¦¢®
4) ºZï.L.«Aiħ mÁæQæ¥ï £qAiÄÄª¦¢®

HIV is a retrovirus because

a) It undergoes reverse transcription
b) It undergoes transcription
3) It doesn't undergo reverse transcription.
d) It doesn't undergo transcription

5. C¥gÁ¢AiÄ£Ä¼ ¥v ºZÄª° e¦«PvAvæÁ£z F «¨ÁUª¦ ¤RgªÁV ¸ºÁAiÄPªÁU§®zÄ

1) v½vAvæÁ£ 2) CAUÁA± P¦¶ 3) ¨g¼ZÄ vAvæÁ£ 4) vzÆæ¸¦¶

The aspect of biotechnology which helps in the detection of culprits in the forensic science

a) Genetic Engineering b) Tissue culture c) Finger print technology d) Cloning

6. ºÆA¢¹ §g¬Äj 1 x 4 = 4

A	B
1. ªzðÉ CAUÁA± Meristamatic tissue	¤ÃgÄ ªÄvÄ DºÁg ¸AUæ¸Äª CAUÁA± water and food storage tissue
2. P¦®A Xylem	gPP CAUÁA± Protective tissue
3. ¥ÇÃAiÄªïï phloem	DzÁg CAUÁA± Supportive tissue
4. ¥Á¦gAP¦ªiÁ Parenchyma	¨¼ª tUPÁgP Growth tissue
	¤Ãg£Ä¼ »ÃgÄª CAUÁA± Water absorbing tissue
	DºÁgª£Ä¼ ¸ÁV¸Äª CAUÁA± Food conducting tissue
	¤Ãg£Ä¼ ¸ÁV¸Äª CAUÁA± Water conducting tissue

F P¼V£ ¥æÆU½U MAzÄ ªÁP¦z° Gvj¹

7. ªiÁ£ª£Ä P±ÃgÄP KP ? 1 x 4 = 4

Man is a Chordate why ?

8. ªiÁ£ª£ £qÄQ« ªÄvÄ ºÆgQ«U¼° ªÁAiÄÄ«£ Mvqª¦ KP ¥g¸g ¸ªiÁªÁVg ¨ÃPÄ ?

Why should be the air pressure in middle and outer ear equal in man ?

9. P®¨gPUÆ¼UÁz DºÁg ¥zÁxðU½Az GAmÁUÄª JgqÄ PÁ¬Ä¯U¼£Ä¼ º¸j¹.

Name any two diseases caused due to the consumption of adultrated food.

10. e¦«P vAvæÁ£z ªÁ¸ÀiÄ£Ä§g. 2 x 6 = 12
Define biotechnology

F P¼V£ ¥æU½U Gvj¹.

11. ¸¸gÁd¦z° Dª¦v ©Ãd ¸¸U¼£Ä Cw ºZÄ «PÁ¸ª£Ä ºÆA¢z ¸¸U¼AzÄ KP PgAiÄ¯ÁVz ?
Angiosperms are considered as the most evolved plants in the plant kingdom why ?

12. P¦®A ªÄvÄ ¥ÇÃAiÄªiïU¼°gÄª °VÃ£ï ©wAiÄÄP fÃªPÆÃ±U¼£Ä º¸j¸Ä.
Name components of xylem & phloem which have lignified wall.

13. ಮಹಾಮಸ್ತಿಷ್ಕದ ಕಾರ್ಟಿಕ್ಸಿನ ದಪ್ಪ ಮತ್ತು ಮಡಿಕೆಗಳು ಹೆಚ್ಚಾದಂತೆ ಮಾನವನ ಬುದ್ಧಿವಂತಿಕೆಯು ಹೇಗೆ ಹೆಚ್ಚಾಗುತ್ತದೆ ?
How does the intelligence of man increase as thickness & convolutions of cerebral cortex increase ?

14. KqïU vÄvÁz ª¦QU £Æ¦ªÆÃ¤AiÄ §AzÁU CzÄ KP UÄtªÁUÄª¦¢® ?
Why pneumonia is not cured in an individual suffering from AIDS ?

15. DºÁgz P®¨gP JAzgÃ£Ä ? DºÁgz P®¨gPAiÄ£Ä vqAiÄ®Ä ¸PÁðgª¦ P¦PÆAq Jgq Pæ¼U¼Ä AiiÁª¦ª¦ ?
What is food Adulteration ? Write any two precautions taken by the government to control food adulteration.

16. EAUÁ®z ZPæ¥j¥Çtð ZPæ¤¸®Ä PÁgtÃ¨ÆvªÁz ªÄgÄZQæ¼gtz ºAvU¼Ä AiiÁª¦ª¦ ?
What are the different stages of recycling which are responsible to consider carbon cycle as perfect cycle ?

F P¼V£ª¦U¼£Ä Gvj¹ 3 x 2 = 6

17. ¸Á¹ª Vqz avæ£Ä ©r¹ ¨ÁUU¼£Ä º¸j¸Ä
Draw a neat diagram of mustard plant and label the parts.

18. F P¼V£ª¦U¼£Ä ¥j¥Çtð ªÄvÄ C¥j¥Çtð fÃªgÁ¸ÁAiÄ¤P ZPæ¼£ÁV ªVÃðPj¹, Cª¦U¼Æ¼V£ MAzÄ ¥æÄR ª¦vÁ¸ª£Ä §g.
1) EAUÁ®z ZPæ 2) ¸Ágd£Pz ZPæ 3) gAdPz ZPæ 4) UAzPz ZPæ
Classify the following into perfect & imperfect biogeochemical cycle and write one main difference between them.
a) Carbon cycle b) Nitrogen cycle c) Phosphorous cycle c) Sulphur cycle

19. ªiÁ£ª£ ªÄzÄ½£ ¤Ã¼bÃzz avæ£Ä ©r¹ ¨ÁUU¼£Ä º¸j¹
Draw a neat diagram of L.S of human brain and label the parts. 4 x 1 = 4

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Model question paper - III

PART - I

PHYSICS & CHEMISTRY

¨ÉøvÀÁ¸ÀªÀvÀÄgÁ¸ÁAiÀÄ£ÀÁ¸À

For Each multiple choice question four alternatives are given. Out of these alternatives choose the correct answer and write the answer in the space provided 1 x 10 = 10

F P¼V£ ¥æÀU½Az ¸jAiiÁz GvgU¼£Ä Dj¹ §g¬Äj.

1) Cª½ £Ugz JgqÄ UU£ ZÄA© PlqU¼ £qÄª PÃ§¯ï mÁåæ¸Á¦¸¨ÃPÁVz. D PlqU¼ £qÄ«£ zÆgª£Ä ¤RgªÁV C¼AiÄ®Ä C£¬Ä¸¨ÃPÁz vv
1) gÄrAiÆÃ bÁAiÄ©A§£ 2) ¯Ã¸gï gÃAfAUï vAvæÁ£
3) zÄw«zÄvï ¥juÁªÄ 4) qÁ¥gï ¥juÁªÄ
Two multistoried buildings in twin cities are to be connected with a cable trolley. Principle applied to measure the accurrate distance between them is
(1) Radiography (2) LASER Ranging (3) Photoelectric effect (4) Doppler Effect

2) ಯಂತ್ರದೊಳಗಿನ ರಚನೆಯಲ್ಲಿನ ದೋಷವನ್ನ ಪತ್ತೆ ಹಚ್ಚಬೇಕಾಗಿದೆ. ಈ ಕಾರ್ಯಕ್ಕೆ ಬಳಸಬಹುದಾದ ವಿದ್ಯುತ್ಕಾಂತೀಯ ತರಂಗ
1) gÄrAiÆÃ 2) CªPA¥À 3) Cw £Ãg¼ 4) JPï-Qgt
We have to detect a flaw in a machine. The electromagnetic radiation used for this Technology is
(1) Radiowave (2)Infrared ray (3) Ultraviolet ray (4) X-ray

3) AiÄÄP ¥æèiÁtz° EAz£ ªÄvÄ UÁ½AiÄ£Ä «Ä±æªiÁqÄª JAf£ï£ ¨ÁU
1) ¦¸£ï 2) PÁ¨ÆÃðgÃlgï 3) ¹°Aqgï 4) ¨ÁAiÄgï
Part of the petrol engine where the air and petrol are mixed in proper proportion is
(1) Piston (2) Carburetor (3) Cylinder (4) Boiler

4) ಉಷ್ಣ ಎಂಜಿನ್ ನಲ್ಲಿ ಈ ಭಾಗ ಇಲ್ಲದಿದ್ದರೆ ರೇಖೀಯ ಚಲನೆಯು ಭ್ರಮಣೆಚಲನೆಯಾಗಿ ಪರಿವರ್ತಿಸಲ್ಪಡುವುದಿಲ್ಲ
1) PÁ¨ÆÃðgÃlgï 2) ¸ÁAzæe 3) ªPæAq 4) gÄrAiÄÃlgï
In a heat engine without this part it is not possible to convert linear motion into rotation
1) Carburetor 2) Condenser 3) Crankshaft 4) Radiator

5) ª¦zÀgÄ gÆÃVAiÄ U¨ðPÆÃ±z°£ UqAiÄ ©A§ª£Ä ¥qAiÄ®Ä §¼¸Äª¦zÄ
1) £Ãg¼ÁwÃv «Qgt 2) JPï-Qgt 3) UÁªiÁ-Qgt 4) ±æuÁwÃv vgAU
Doctors use this to get the image of fibroids of uterus
(1) X-ray (2) Gamma ray (3) Ultraviolet ray (4) Ultrasonic wave

6) F P¼V£ª¦U¼° AiiÁª¦zÄ E®¢z¦g ¨É¦fP QæèiÁPÁjAiÄÄ vPt ¥gªiÁtÄ ¨ÁA©£Av ¸Æn¸Ävz
1) ¤AiÄAvæ¸g¼Ä 2) ªÄAzP 3) gPÁ PªZ 4) vA¥¦PÁj
If this part is not present in the nuclear reactor then it might function like a nuclear Bomb
(1) Control rods (2) Moderator (3) Concrete shield (4) coolant

7) ªÁAiÄªiÁ°£¸ª£Ä vqAiÄÄª GzÀÃ± ºÆA¢gÄªªgÄ CqÄUU §¼¸Äª EAz£
1) ¹ÃªÄ Ju 2) PnU 3) zæ¥mÆÃæAiÄªïï C¤® 4) ¨gt
To prevent the air pollution, one can use this fuel
(1) Kerosene (2) Wood (3) Liquid petroleum gas (4) Dung cake

8) ಬೋರೋಸಿಲಿಕೇಟ್ ಗಾಜನ್ನು ಪ್ರಯೋಗ ಶಾಲೆಯಲ್ಲಿ ಉಪಯೋಗಿಸಲು ಕಾರಣವಾದ ಅದರ ವಿಶಿಷ್ಟಗುಣ
1) ತಾಪವೈಪರೀತ್ಯ ಸಹಿಷ್ಣುತೆ 2) ©zÄgv 3) ¥Ágz±ðPv 4) GZªQæÃeg t ¸ÆZÁ¸AP
Which property of the borosilicate glass is the reason for using it in laboratory?
(1) Withstands high temperature fluctuation (2) Brittleness (3) Transparency (4)High refractive index

9) ªiÁdðPz C£¥ÃQÃv UÄt
1) e¸ª ²y°ÃAiÄªÁVgÄª¸zÄ 2) D«ÄÃAiÄ ªiÁz¸ªÄz°¸Z UÆ½¸Äª¸zÄ
3) Uq¸Ä ¤Ãj£° ¸ZUÆ½¸Äª¸zÄ 4) e¸ª²y°ÃAiÄªÁV®¢gÄª¸zÄ
One cannot encourage the use of detergent because of this property
(1) Biodegradability (2) Cleaning in acidic medium (3) Cleans in hard water (4) Non Biodegradability

10) M§¸ «zÁ¸ðU vAV£ Ju, ¸ÆÃrAiÄªiï º¸qÁæ¸qï, ¸ÆÃrAiÄªiï PÆÃg¸qï E ª¸U¼£Ä ¤Ãq¯ÁVz. E ª¸U½Az C ª£Ä vAiiÁj¸ §ºÄzÁzzÄ
1) rleðAmï 2) ¸ÆÃrAiÄªiï ¹ÃAiÄgÃmï
3) ¥ÇÃmÁAiÄªiï ¥Á«ÄmÃmï 4) ¸ÆÃrAiÄªiï PÁ¨ÆÃð£Ãmï
Coconut oil, Sodium hydroxide and Sodium Chloride are given to the student, Using these he can prepare
(1) Detergent (2) Sodium stearate (3) Potasium Palmitate (4) Sodium carbonate

©ngÄª eÁUª£Ä vÄA©j
11) gAdPz ¥gªiÁtÄU¼£Ä ¹°PÁ£ï ºg½U ¨gP ªiÁrzÁU DUÄª CgªÁºPz «z ---- 1 x 3 = 3
The type of semiconductor obtained when silicon is doped with phosphorous is_____

12) ¸ÆÃ£Ágï¤Az ºÆgl ±æuÁwÃv vgAU ¸ªÄzæ v¼ª£Ä v®Ä¦, ¥æ¥®£UÆAqÄ UÁæºª£Ä 3 ¸PAqÄU¼°¸Ãjzg, ¸ªÄzæD¼ ------
Ultrasonic waves are emitted from the SONAR. These waves are reflected by the ocean bottom and reach the detector in 3sec,The depth of the ocean is _____

13) ¸Ëg M¯AiÄ M¼U ºZÄ ±ÁR ¸AUæªÁUÄªAv ªiÁqÄª ¨ÁU _____
The part which helps to store large amount of heat energy inside the solar cooker is_____

14) ºÆA¢¹ §g 1 x 4 = 4

A	B
1. C_6H_6	£¸VðP C¤®z ªÄR¸WlP/Main component of natural gas
2. C_6H_{12}	D¯ö£ï/Alkyne
3. C_6H_{10}	¸ÄªÁ¸£AiÄÄP º¸qÆæÁ§ð£ï/Aromatic hydrocarbon
4. CH_4	L¸ÆÃ ºP£ï/Iso hexane
	PÁ¨ÆÃð¸ÉQPï º¸qÆæÁ§ð£ï/Carbocyclic hydrocarbon
	zæ¥mÆæAiÄªïï C¤®z ªÄR¸WlP/Main component of L.P.G
	C¹l°£ï/Acetylene

F P¼V£ ¥æÀU½U MAzÄ ¥z Cxª Á MAzÄ ªÁPÀz° Gvg §g¬Äj
Answer the following in One sentence

15) ¸Anæ€ieï JAzgÃ£Ä ? 1 x 6 = 6
What is centrifuge?

16) ¸ÀP¯ï ¸ªÁg£Ä wgÄªÀ ¥xz° Z°¸ÄªÁU PÃAzæ PqU KP ¨ÁUÄvÁ£ ?
Why does a cyclist lean towards the centre of the curve while moving in a curved path?

17) ¸Ëg ªÁvÁªg t z Jgq Ä ¨ÁUÀ¼Ä AiiÁªÀªÀ ?
Which are the two regions of solar atmosphere?

18) 20 ವೋಲ್ಟ್ ವಿದ್ಯುತ್ ಪಡೆಯಲು ಸೌರಪಟ್ಟಿಯಲ್ಲಿ2ಚದರ ಸೆಂ.ಮೀನ ಎಷ್ಟು ಸಿಲಿಕಾನ್ ಸೌರಕೋಶಗಳನ್ನು ಜೋಡಿಸ ಬೇಕು ?
How many silicon solar cells of 2 sq.cm. area are to be connected in a solar panel to produce 20v?

19) M§ ªÀQ ªÆmÁgï ¨ÁPï£ §¼PAiÄ£Ä¤°¹ ¸ÀP®£Ä §¼¸ÄvÁ£ .F PæÄªÄ£Ä Evgg Ä C£Ä¸j¹zÁU AiiÁª «zz ±QAiÄ ªÄÆ®z ªÄÃ°£ Mvq Pr ªÄAiÁUÄvz ?
A person starts to use bicycle instead of a motor cycle.If others also follow this method then pressure on which source of energy can be minimized ?

20) ¨ÁAiÄgïU¼° ¸vvªÁV Uq¸Ä ¤Ãg£Ä §¼¸ÄªÀzjAz ¸A¨«¸§ºÄzÁz C¥ÁAiÄ AiiÁªÀzÄ?
What are the possible harms occurring with the continuous use of hard water in boilers?

21) 1) ¸ÄgÄ½U ºÆA¢PÆAq PÁAv, ¸ÄgÄ½ ¸ÄvÄª ªÃUz° ºÁUÆ CzÃ ¢Q£° ¸ÄvÄwgÄªÁU ¥Ãæ¥v «zÄvï ZÁ®P §¯ GAmÁU¢gÄªÀzP PÁg t PÆqÄ. 2 x 9 = 18
2) ¥Ãæ¥v «zÄvÁ®P §®z ªÄÃ¯ ¥ÆÁª ©ÃgÄª CA±U¼Ä AiiÁªÀªÀ ?
1) A magnet and a coil are moving in the same direction and with same speed e.m.f is not induced in the coil ? Give reason.
2) What are the factors influencing induced e.m.f?

22) r.¹ q£ªÆÃz avæ®r¹. ¨ÁUÀ¼£Ä º¸j¹
Draw a neat labeled diagram of DC Motor.

23) ªÀzÀQÃAiÄ PÃvæ° £Ãg¼ÁwÃv «Qg t z Jgq Ä G¥AiÆÃU¼£Ä §g¬Äj.
Write any two uses of Ultraviolet ray in the field of medical.

24) mÁæ¸gï£ Jgq Ä «zU¼ ªÄAq® ¸APÃvU¼ avæ®r¹j
Give the circuit symbols of two types of transistor.

25) ¥mÆÃæ¯ï JAf£ï£ ¨ÄQ ºÆqvz avæ®r¹j
Draw a sketch of intake stroke of a petrol engine

26) ಕಾರಣ ಕೊಡಿ. 1) ಉಷ್ಣೋತ್ಪತ್ತಿ ತಂತಿಗಳ ತಯಾರಿಕೆಗೆ ನೈಕ್ರೋಮ್‌ನ್ನು ಬಳಸುತ್ತಾರೆ. 2) ಆಭರಣ ತಯಾರಿಸುವಾಗ ಚಿನ್ನಕ್ಕೆ ತಾಮ್ರ ¸Ãj¸ÄvÁg.
Give reason for each of the following (1)Nichrome is used to make heating coils (2) Copper is mixed with gold while making ornaments

27) ¸nP ¹°PÁ£ï£Ä ºÃU ¥qAiÄ¯ÁUÄvz ?¸«ÄÃPgtzÆA¢U «ªj¸Ä
How is crystalline silicon obtained? Explain with the equation

28) UÁf£ C¤®£ JAzgÃ£Ä ? EzjAz DUªÄ C£ÄPÆ®v K£Ä ?
What is annealing? What is its use?

29) ¤Ãj£ ¸AgPuAiÄ £Á®Ä PæÄU¼£Ä §g.
Write four methods of conserving water.

30) 1) «±ªÁ¦ UÄgÄv ¤AiÄªÄªÄ£Ä ¤gÆ¦¹. 3 x 4 = 12
2) UÄgÄv ¤AiÄªÄ¢Az ¸Ä¥ðPªÁV «ªj¸®l £Á®Ä CA±U¼Ä AiiÁªÀªÀ?
1) State the universal law of gravitation.
2) Mention four points successfully explained by it.

31) 1) gÆÃ»v z±ðPz° §tU¼ C¢ªÁ¥£AiÄ£Ä ºÃU PrªÄ AiiÁUÄvz ?
2) ¨¼Q£ ªtð«¨d£U PÁgtªÃ£Ä ?
3) ಮೇಣದ ಬತ್ತಿಯ ಜ್ವಾಲೆ ಮತ್ತು ಅನಿಲ ಬಾಷ್ಪ ದೀಪಗಳಿಂದ ದೊರೆಯುವ ರೋಹಿತದ ವಿಧಗಳು ಯಾವುವು ?
1) How can overlapping of colours in spectroscope be minimized?
2) What is the reason for dispersion ?
3) Mention the type of spectrum obtained by candle flame and light emitted from gases or vapours.

32) F P¼V£ ¸Az¨ðU¼° G¥AiÆÃV¸®qÄª L¸ÆÃmÆÃ¥ïU¼£Ä ºÃ¸j¹
1) ¥½AiÄÄ½P ±Á¸¦d¤U zÆgv q¦£ÆÃ¸Ág¸ï£ ¥¼AiÄÄ½PAiÄ ªAiÄ¸£Ä w½AiÄ®Ä
2) ಔಷದಿ ತಯಾರಿಕನಿಗೆ ಔಷಧಿಯ ಪರಿಣಾಮವನ್ನು ತಿಳಿಯಲು
3) P¦¶ «eÁ¤U gÁV ¨¼U AiiÁª jÃwAiÄ ¥Ã¸Ãmï£ CUv¦«zAiÄAzÄ PAqÄPÆ¼®Ä
Write the name of the isotopes used in the following cases
1) To find the age of fossil of Dynosaraus
2) To study the action of medicines
3) To determine the kind of phosphate required for Ragi crop.

33) 1) ¸g¥½ «z¼£ QæÄAiÄ avæ®r¹,£Æ¦mÁ£ï ªÄvÄ «z¼£ ªÄÄgÄPÄU¼£Ä UÄgÄw¹.
2) ಒಂದು ಬೀಜ ವಿದಳನದಿಂದ 2 ನ್ಯೂಟ್ರಾನುಗಳು ಬಿಡುಗಡೆಯಾದರೆ 3ನೇ ಹಂತದ ವಿದಳನದಲ್ಲಿ ಎಷ್ಟು ನ್ಯೂಟ್ರಾನುಗಳು ©qÄUqAiiÁUÄvª?
Sketch the diagram of nuclear fission reaction and label neutron and fission fragments
a) Calculate the number of neutrons liberated in the third stage of nuclear fission reaction liberating two neutrons when a nucleus gets fissioned

34) 1) ¨Æ¹g G¥Uæe¹gªÁV UÆÃZj¸®Ä PÁgtªÃ£Ä ? 4 x 3 = 12
2) ¨Æ¹g G¥UæU¼ ¸A¥PðeÁ®U½Az dUvÄ QjzÁVz .¸ªÄxð£ ¤Ãr.
3) PPÁ ªÃU ªÄvÄ «ªÆÃZ£ ªÃUU¼ £qÄ«£ ¸A§Az §g¬Äj.
1) Why does geostationary satellite appear to be stationary?
2) "Communication network of geostationary satellite made this world tiny". Justify this statement.
3) Write the relation between Orbital and escape Velocity

35) vÁªÄæ±Ä¢ÃPgtP G¥AiÆÃV¸Äª «zÄvï «¨d£ PÆÃ±z avæ®r¹, ¨ÁUU¼£Ä º¸j¹.
Draw the sketch of electrolytic cell for purification of copper and label the parts

36) 1) ಎರಡನೇ ಕಾಂತಿಮಾನ ನಕ್ಷತ್ರವು ನಾಲ್ಕನೇ ಕಾಂತಿಮಾನ ನಕ್ಷತ್ರಕ್ಕಿಂತ ಎಷ್ಟು ಪಟ್ಟು ಹೆಚ್ಚು ಪ್ರಕಾಶಮಾನವಾಗಿದೆ ?
2) £Pvæ¼ «©£ UÆÃZg ¥Æá±P PÁgtªÃ£Ä ?
3) £ÁPwæ«PÁ¸z° PPÆ£ï ºAv ªÄvÄ ¹g¹w ºAv ºÃU GAmÁUÄvz.
1) How many times a star of magnitude 2 is brighter than a star of magnitude 4
2) Why do the stars differ in their apparent brightness?
3) Explain how the cocoon and steady stage of a star occur.

fÃªÀÄ¸À

For Each multiple choice question four alternatives are given. Out of these alternatives choose the correct answer and write the answer in the space provided 1 x 5 = 5

1) F P¼V£ ¸¸U¼° ©ÃeÁtÄd£P ªÄvÄ °AUÁtÄ d£PU¼gqÄ ¸vAvæÁVgÄª ¸¸
1) Dª¸v©Ãd ¸¸U¼Ä 2) ¥ZÀ¸¸U¼Ä 3) C£Áª¸v ©Ãd¸¸U¼Ä 4) §æÄÆÃ¥¸mïU¼Ä
Which among the following plants have independent Sporophyte and gametophyte.
A) Angiosperms B) Pterydophytes C) Gymnosperms D) Bryophytes

2) jª¸ïð mÁæÄQæ£ï JA§ QæÄAiÄÄ EzÁVgÄvz
1) r.J£ï.J ¬ÄAz Dgï.J£ï.J vAiiÁj
2) Dgï.J£ï.J ¬ÄAz ¥ÇæÃ£ï£ vAiiÁj
3) Dgï.J£ï.J ¬ÄAz r.J£ï.J AiÄ vAiiÁj
4) r.J£ï.J CtÄU¼ ¢¥æÁPgt
This is the reverse transcription process
A) Synthesis of RNA by DNA
B) Synthesis of protein by RNA
C) Synthesis of DNA by RNA
D) replication of DNA molecules

3) ªiÁ£ª£ ªÄzÄ¼Ä§½¬ÄAz K¥ðqÄª ¥gÁªwðvZÁ¥z ªÁ¦U §gÄª WlPU¼° Eª¸PÆq ¸Äjª
1) eÁ£ªÁ» £gU¼Ä 2) QæÄiÁªÁ» £gU¼Ä
3) eÁ£ªÁ» £gªÄÆ® ªiÁvæ 4) eÁ£ªÁ» ªÄvÄ QæÄiÁªÁ» £gªÄÆ®U½Az ¸AAiÆÃfvªÁz «Ä±æÄgU¼Ä
Reflex arc produced by spinal chord of man also includes these components
A) sensory nerves B) motor nerves
C) only the sensory roots D) mixed nerves produced by the combination of sensory and motor roots

4) ¥¸£gï¸AAiÆÃfv r.J£ï.J vAvæÁ£ª¸ Ezg E£Æ¸AzÄ º¸gÁVz
1) v½vAvæÁ£ 2) e¸«P vAvæÁ£ 3) CAUÁA± P¸¶ 4) ¨g¼ZÄ vAvæÁ£

Another name for recombinant "DNA Technology" is
A) Genetic engineering B) Biotechnology C) Tissue culture D) DNAfingerprint technology

5) ¸ªð eÁ£ÃA¢æÄU¼ eÁ£ªÁºP £gU¼ D¢ ªÄvÄ CAv¦U¼Ä »ÃVgÄvª
1) ಆದಿ – ಮೆದುಳಿನ ನಿರ್ದಿಷ್ಟ ಜ್ಞಾನಕ್ಷೇತ್ರ; ಅಂತ್ಯ – ನಿರ್ದಿಷ್ಟ ಜ್ಞಾನೇಂದ್ರಿಯ
2) ಆದಿ – ನಿರ್ದಿಷ್ಟ ಜ್ಞಾನೇಂದ್ರಿಯ; ಅಂತ್ಯ – ಮೆದುಳಿನ ನಿರ್ದಿಷ್ಟ ಜ್ಞಾನಕ್ಷೇತ್ರ
3) ಆದಿ – ಮೆದುಳಿನ ನಿರ್ದಿಷ್ಟ ಜ್ಞಾನಕ್ಷೇತ್ರ; ಅಂತ್ಯ – ತತ್ಸಂಬಂಧಿ ನಿರ್ದಿಷ್ಟ ಜ್ಞಾನೇಂದ್ರಿಯ
4) ಆದಿ – ಮಣಿಶಿರ; ಅಂತ್ಯ – ನಿರ್ದಿಷ್ಟ ಜ್ಞಾನೇಂದ್ರಿಯ
Origin and end of sensory nerves of all sensory organs are as follows.
A) origin - specific sensory area of brain; end - specific sense organs
B) origin - specific sense organs; end - specific sensory area of brain
C) origin - specific sensory area of brain; end - specific related sense organ
D) origin - Medulla oblongata; end - specific sense organs

6) ºÆA¢¹ §g 1 x 4 = 4

A	B
1. KjAiÆÃ¯Ágï CAUÁA±/Aerolar tissue	C£ÀaP ¸ÁÄAiÄÄU¼Ä/ involuntary muscles
2. ¥m ¸»v ¸ÁÄAiÄÄU¼Ä/striped muscles	¨PP fÃªPÆÃ±U¼£Ä ºÆA¢z/intercellular space
3. ¥Ãmï¯mï/platelets	LaP ¸ÁÄAiÄÄU¼Ä/voluntary muscles
4. DPÁ£ï/Axon	gP º¥ÀUlÄ«PU ¸ºÁAiÄP/clotting of blood
	¨ÆdÄ CAUÁA±/Adipose tissue
	ªÄAiÄ°£ï ºÆ¢z/Myelin sheath
	qAqæÃmï/Dendrite

7) AiiÁª¦zÁzgÆ JgqÄ xÁ®¸ïAiÄÄP ¸¸¦U¼£Ä ºÁ¸j¹ 1 x 4 = 4
Name any two plants which are having thallus.

8) zÄwgÁ¸ÁAiÄ¤P ¸ÁUï ªÄvÄ DªÄªÄ¼U¼Ä KP ªÄ£ÄPÄ®P¦ ±Á¥ J¤¹ª ?
"Photochemical smog and acid rain are curse to man kind" why?

9) ¨g¼ZÄ vAvæÁ£z AiiÁª¦zÁzgÆ MAzÄ C£AiÄª£Ä §g.
Write any one of the application of DNA finger print technology.

10) vÄ¥zÆA¢U ¸ÁªiÁ£¦ªÁV «Ä±æiÁqÄª P®¨gP ¥zÁxðª¦ AiiÁª¦zÁVz ?
Which substance is mixed as a adultrant in ghee?

11) x¦gÁQ£ï ªÄvÄ Cræ¯ïºÁªÆÃð£ïU¼ MAzÆAzÄ PÁAiÄðª£Ä §g¬Äj 2 x 6 = 12
Write one function of hormone Thyroxin and Adrenaline

12) ªiÁ£ª£ Pt£°gÄª º¼¢ ¥æÃ± ªÄvÄ CAz¥æÃ±U½VgÄª JgqÄ ¥æÄR ª¦vÁ¸U¼£Ä §g
Write any two differences between yellow spot and blind spot of human eye.

13) ªiÁ£ª£ DgÆÃU¦z ªÄÃ¯ ¥æPÆ® ¥juÁªÄU¼£Ä GAlÄªiÁqÄª ««z ªiÁ°£¦U¼£Ä ºÁ¸j¸Ä.
Name the different types of pollutions that effect human health.

14) JZï.L.« ªÄvÄ ºZï.©.«U½VgÄª AiiÁªÀzÁzgÆ JgqÄ ¥ÀæÄÄR ªÀvÁ¸U¼£Ä ¥nªiÁr
List out any two main differences between HIV and HBV

15) F P¼V£ªÀU¼£Ä ¸g¼ ±Á±v CAUÁA±U¼Ä ªÄvÄ ¸AQÃt ð ±Á±v CAUÁA±U¼£ÁV ªVðPj¹j. ¥Á¸gAPÀªiÁ, PöÀ®A, ¥ÇÃAiÄªiï, PÆÃ¯APÀªiÁ
Classify the following into Simple permanent tissues and Complex permanent tissues.(a)Parenchyma (b)Xylem (c)Phloem (d)Collenchyma

16) F P¼V£ªÀU¼£Ä ªÄÆgÄ ªÄvÄ £Á®Ä PÆÃuU¼Ä¼ ºÀzAiÄª£Ä ºÆA¢z ¥ÁæU¼£ÁV ªVÃðPj¹j
1) P¥ 2) ¥Ájª Á¼ 3) ¸¥ð 4) ªiÁ£ª
Classify the following vertebrates into three chambered and four chambered heart bearing animals
(a) Frog (b) Pigeon (c) Cobra (d) Man

17) fÃª¨ÆgÁ¸ÁAiÄ¤P ZPÀæ¼£Ä ¥j¥Çt ð ªÄvÄ C¥j¥Çt ð ZPÀæ¼ÁV ªVÃðPj¸Äª ° ¸AUæ ªÄÆ®, «¤ªÄAiÄ ªÄÆ® ¹jÃPgt ªÄvÄ ªÄgÄZQæ gt U¼Ä ºÃU DzÁgP CA±U¼ÁVª ? 3 x 2 = 6
How are Reservoir pool, Exchange pool, fixation and recycling Considered as the basic factors in the classification of biogeochemical Cycles into perfect and imperfect cycle?

18) «ÄÃ¤£ ¨Áº¸ gZ£AiÄ£Ä vÆÃj¸Äª avæ£Ä §gzÄ ¨ÁUU¼£Ä º¸j¹j
Draw a neat diagram of external features of a fish and label the parts.

19) ªÄzÄ¼Ä§½AiÄ CqbÃz £ÆÃlz avæ§gzÄ ¨ÁUU¼£Ä º¸j¸Ä 4 x 1 = 4
Draw a neat diagram of cross section of spinal chord and label the parts.

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