





11. A p-n junction allows current to pass in one direction this is called \_\_\_\_\_ 1 x 3 = 3  
 p-n dAPEi «ZÁvi EÁB MAZÁ EÁgZP e aÁVbe J AiÁ®Á ©qÁVZÉ F QÁÁAiÁ °ÉgÁ \_\_\_\_\_ .
12. Rader gun works on the principle of \_\_\_\_\_  
 gÁqÁgí UEi P® Á aÁÁqÁ aÁVÁ \_\_\_\_\_.
13. The device which converts light energy into electrical energy is \_\_\_\_\_  
 VÁDEÁ ±DÁiÁEÁB «ZÁvi ±DÁiÁÁV ¥j aÁVÖ Á aÁ ÁZEÁ \_\_\_\_\_
14. Match the following/°ÁEAC<sup>1</sup> Sgf-Áj : 1 x 4 = 4
- | A                          | B   |
|----------------------------|---|
| 1. Natural Gas/ÉÉ VÖPÁ Cα® | L.P.G/zkeVÁ ¥ÁÁEÁ AiÁÁ Cα®  |
| 2. Butane/SÁEÁÉi           | explosives/ÁEÁ PÁMÁ   |
| 3. Benzene/ÉÉÉi            | to detect leakage of L.P.G/zkeVÁ ¥ÁÁEÁ AiÁÁ Cα® ÁEÁj PÉ ¥ÁÁ°ÁZÁ ÁZÁ |
| 4. Toluene/mÁ° ÁÉi         | emission test/°ÉgÁ ÁEÁ ÁPÉ ¥j ÁPÉ                                   |
|                            | Carbon black/PÁSÖÉi aÁ <sup>1</sup>                                 |
|                            | Perfumes/Á aÁ <sup>1</sup> PÁ                                       |
|                            | Exhaust gas/ನಿಷ್ಕಾಸ ಅನಿಲ .  |
15. A cyclist going round a curve leans towards the centre of the curve. Give reason 1 x 6 = 6  
 PÁi P ÁgEÁ wgÁ«ÉP e °ÁEÁUÁ aÁUÁ wgÁ«ÉÁ PÁAZÁ PÁÁE aÁÁVÁEÉ E ZPÉ PÁgÁ PÉR.
16. What is a centrifugal governer?  
 ÁÁÁEÉi ±ÁiÁVÁEÁ JAZÁÁEÁ ?
17. What is the colour of the star Betelgeuse?  
 ©Ái Ái VÁ Ái ÉPÁÁÁ SÁÁEÁ ?
18. Mention the purpose of using a plane glass sheet in a solar cooker?  
 ÉgÁ CrUEM ÁiÁ° e UÁFEÁ aÁÁZÁÁEÁB SÁÁÁ aÁ GZÁ±P ÉÁB w½<sup>1</sup>.
19. How does the pressure cooker help in saving energy?  
 ¥ÁÁj PÁÁj ±DÁiÁEÁB G½VÁÁiÁ aÁÁqPÁ °ÁUÉ P ÁÁiÁPÁj AiÁÁVZÉ ?
20. Write the balnced chemical equation of the reaction between sodium carbonate and calcium chloride  
 ÉÁrÁiÁÁ PÁ ÁEÁÖÉÁmi aÁÁVÁ PÁ° ÁiÁÁ PÉÁgÁqÁUÁÁ ÉÁÁ«ÉÁ gÁ ÁÁiÁ±PÁ QÁÁÁiÁ P ÁVÁEV<sup>1</sup> ZÁ gÁ ÁÁiÁ±PÁ  
 kÁÁPÁÁ aÁEÁ Sgf-Áj .
21. Write any two factors on which the induced EMF depends 2 x 9 = 18  
 ¥ÁÁÁ «ZÁvi ZÁ®PÁ S® C a PÁ©<sup>1</sup> gÁ aÁ AiÁÁ aÁZÁÁEÁ JgÁ CA±UÁEÁB w½<sup>1</sup>.
22. Draw a neat sketch of D.C. Dynamo  
 r.1. qÉP ÁEÁZÁ CAZÁ ÁZÁ aVÁEÁB Sgf-Áj .
23. What is electromagnetic spectrum?













12. ±kAíÀ GAUÁgÀ gZÉÁiÁEÁB w½AíÀ®Á ŸÁP ÁVgÁª ÁZÀ \_\_\_\_\_ ¥J UÁª ÁÇAZÀ  
 The effect that helps us to know about rings of Saturn is \_\_\_\_\_

13. EÁ®Ái °fQÉÉÉÉi ©ÁDUKÁ ŸÁÁ®EÁUÉEAQÁ MAZÁ »Á° Aíiª Ái ©Ádª ÁV ±DU ©qÁUqÁiÁÁUªª ÁZÁ \_\_\_\_\_  
 The chain reaction in which four hydrogen nuclei fuse into one helium nucleus with the liberation of energy is \_\_\_\_\_

14. °KÉÇ¹ Sgí

- | A                              | B   |
|--------------------------------|---|
| 1. J <sup>-</sup> .i. f/L.P.G  | FyÁÉi/Ethane                                  |
| 2. ¹.JÉi.f/C.N.G               | EÁgÁ ŸÁÁ®EÁUÉEAQÁ/Straight chain              |
| 3. L ŸÁÁ®EÁ ¥ÁMÁÉi/Iso pentane | FxÉ <sup>-</sup> iª ÁgíPÁÁ¥Éi/Ethyl mercaptan |
| 4. ¥ÁgÁi Éi/Paraffine          | C <sub>n</sub> H <sub>2n+2</sub>              |
|                                | C <sub>5</sub> H <sub>10</sub>                |
|                                | CH <sub>4</sub>                               |
|                                | C <sub>6</sub> H <sub>6</sub>                 |

F PÁVÉÁ ¥ÁÁUÁUÉ MAZÁªª ÁPÁ ZÁ È GvJ ¹  
 Answer the following in One sentence

1 x 6 = 6

15. PÁZÁÁ®ÁR S® JAZÁgÁEÁ ?  
 What is centripetal force?

16. ŸÁÁV® gÁ ÁiÁ wgÁ«ÉP è gÁ ÁiÁEÁB °ÁUÉ gÁ¹ gÁVÁgP?  
 How does the roads are constructed at the bends on a level road?

17. ŸÉgÁ CrUÉ M<sup>-</sup>ÁiÁ ¥ÁÁUÉ UÁFÉÁªª ÁZÁk gÁVÉ PÁgít PÉr.  
 Solar cooker is covered with a transparent plate of glass -Give reason.

18. °S®EÁª Aíªªª EÁBª gME | ¹.  
 State Hubble's law.

19. eÁEÁª ÁgÁUÁEÁB ŸÁPªªª ±DU ±DU ©PÁ EÁB ¥J °J ŸÁÁZPÉ ŸÁZÁKÁ ÁVÉ VUÉZÁPÉªª °ÁZÁZÁ PÁªª EÁ ?  
 Write the remedial measure that can be taken by a cattle raring person in order to minimize the energy crisis.

20. ¤Áj EÁ UqÁ ÁVÉPÉ PÁgítªª ÁZÁ Aíiªª ÁZÁZÁgME 4 ®ªÁ UÁEÁB °ÉJ ¹  
 Name any four salts that cause hardness of water.

F PÁVÉÁ ¥ÁÁUÁUÉ GvJ ¹.

21. r.1.ªª ÁEÁÁgíEÁ ÁVÉr¹ ŸÁÁUÁEÁB °ÉJ ¹.  
 Draw a neat labelled diagram of DC Dynamo.

2 x 9 = 18









Model question paper - III

PART - I

PHYSICS & CHEMISTRY

ಉಷ್ಣತೆ, ವಿದ್ಯುತ್, ಪದಾರ್ಥಗಳ ಸ್ವಭಾವ, ಪರಮಾಣು ರಸಾಯನಶಾಸ್ತ್ರ

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

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) Two multistoried buildings in twin cities are to be connected with a cable trolley. Principle applied to measure the accurate distance between them is

- 1) Radiography 2) LASER Ranging 3) Photoelectric effect 4) Doppler Effect

Two multistoried buildings in twin cities are to be connected with a cable trolley. Principle applied to measure the accurate distance between them is

- (1) Radiography (2) LASER Ranging (3) Photoelectric effect (4) Doppler Effect

2) ಯಂತ್ರದೊಳಗಿನ ರಚನೆಯಲ್ಲಿನ ದೋಷವನ್ನು ಪತ್ತೆ ಹಚ್ಚಬೇಕಾಗಿದೆ. ಈ ಕಾರ್ಯಕ್ಕೆ ಬಳಸಬಹುದಾದ ವಿದ್ಯುತ್ಕಾಂತೀಯ ತರಂಗ

- 1) ಗ್ರೇ-ರೇಡಿಯೇಷನ್ 2) ಕೆ-ರೇಡಿಯೇಷನ್ 3) ಕ್ಷ-ರೇಡಿಯೇಷನ್ 4) ಜಿ-ರೇಡಿಯೇಷನ್

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) ಪೆಟ್ರೋಲ್ ಎಂಜಿನ್ ನಲ್ಲಿ ಈ ಭಾಗ ಇಲ್ಲದಿದ್ದರೆ ರೇಖೀಯ ಚಲನೆಯು ಭ್ರಮಣೆ ಚಲನೆಯಾಗಿ ಪರಿವರ್ತಿಸಲ್ಪಡುವುದಿಲ್ಲ

- 1) ಪಿಸ್ಟನ್ 2) ಕಾರ್ಬುರೇಟರ್ 3) ಸಿಲಿಂಡರ್ 4) ಬೋಲರ್

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 ಭ್ರಮಣೆ ಚಲನೆಯಾಗಿ ಪರಿವರ್ತಿಸಲ್ಪಡುವುದಿಲ್ಲ

- 1) ಕಾರ್ಬುರೇಟರ್ 2) ಕಾಂಡೆನ್ಸರ್ 3) ಕ್ರಾಂಕ್‌ಶಾಫ್ಟ್ 4) ರೇಡಿಯೇಟರ್

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) ಡಾಕ್ಟರ್‌ಗಳು ಗರ್ಭಿಣಿಯರಲ್ಲಿ ಅಂಜಲಿಗಳನ್ನು ಪತ್ತೆಹಚ್ಚಲು ಈ ತಂತ್ರವನ್ನು ಬಳಸುತ್ತಾರೆ

- 1) ಡಿ-ರೇಡಿಯೇಷನ್ 2) ಜಿ-ರೇಡಿಯೇಷನ್ 3) ಉಲ್ಟ್ರಾವಯೋಲೆಟ್ ರೇಡಿಯೇಷನ್ 4) ಉಲ್ಟ್ರಾಸೌಂಡ್ ತರಂಗ

Doctors use this to get the image of fibroids of uterus

- (1) X-ray (2) Gamma ray (3) Ultraviolet ray (4) Ultrasonic wave

6) ಈ ಭಾಗ ಇಲ್ಲದಿದ್ದರೆ ನ್ಯೂಕ್ಲಿಯರ್ ರಿಯಾಕ್ಟರ್ ನಲ್ಲಿ ಅದು ನ್ಯೂಕ್ಲಿಯರ್ ಬಾಂಬ್‌ನಂತೆ ಕಾರ್ಯನಿರ್ವಹಿಸುತ್ತದೆ

- 1) ನಿಯಂತ್ರಕ ರೋಡ್ 2) ಮೋಡರೇಟರ್ 3) ಕಾಂಕ್ರೀಟ್‌ನಲ್ಲಿನ ರೇಡಿಯೇಷನ್ ರಕ್ಷಣೆ 4) ತಂಪುಗೊಳಿಸುವ ದ್ರವ

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







- 34) 1) Why does geostationary satellite appear to be stationary? 4 x 3 = 12  
 2) "Communication network of geostationary satellite made this world tiny". Justify this statement.  
 3) Write the relation between Orbital and escape Velocity
- 35) 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) Why do the stars differ in their apparent brightness?  
 3) Explain how the cocoon and steady stage of a star occur.

fÁÁ Á

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) Which among the following plants have independent Sporophyte and gametophyte.  
 A) Angiosperms B) Pteridophytes C) Gymnosperms D) Bryophytes
- 2) 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) 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) ...  
 1) ... 2) ... 3) CAUAA±Á PÁ 4) ...

Another name for recombinant "DNA Technology" is

- A) Genetic engineering B) Biotechnology C) Tissue culture D) DNA fingerprint technology

5) „PÁD eÁEÁACÁUÁ eÁEÁ Á°PÁ EÁUÁ DÇ aÁVÁU CAVUÁ »ÁVgÁVÉ

- 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) °EÁÇ¹ SgÉ

1 x 4 = 4

- | A                                     | B   |
|---------------------------------------|---|
| 1. Kj AiEÁ-Ági CAUÁA±Aerolar tissue   | CÉÁPÁ „ÁBAIÁUÁ/ involuntary muscles         |
| 2. ¥ÁÁÁ »VÁ „ÁBAIÁUÁ/stripped muscles | „PÁ FÁ°PÁEÁ±UÁEÁB °EÁÇZ/intercellular space |
| 3. ¥ÁÁmi-Áni/platelets                | LaPÁ „ÁBAIÁUÁ/voluntary muscles             |
| 4. DPÁEi/Axon                         | gPÁ °¥ÁÁÁ ÁÇPÉ „PÁÁIÁP/clotting of blood    |
|                                       | „EÁÁU CAUÁA±AAdipose tissue                 |
|                                       | aÁÁi°Ei °EÁÇZ/Myelin sheath                 |
|                                       | qÁÁÁmi/Dendrite                             |

7) AiÁÁÁZÁZÁgE JgÁÁ xÁÁ°ÁiÁÁPÁ „ÁUÁEÁB °ÉJ¹

1 x 4 = 4

Name any two plants which are having thallus.

8) zÁÁvgÁ „ÁÁiÁPÁ „ÁÁi aÁVÁU D°ÁEÁUÁ KPÉ aÁEÁPÁ°PÉ ±Á¥Á JÁ¹aÉ?

"Photochemical smog and acid rain are curse to man kind" why?

9) „gÁZÁÁVÁÁEÁZÁAiÁÁÁZÁZÁgE MAZÁ CEAiÁ°EÁB SgÉ

Write any one of the application of DNA finger print technology.

10) vÁ¥ÁZÁEÁÇUÉ „ÁÁÁEÁPÁV «Á±ÁÁÁqÁ°ÁPÁ „gPÉ ¥ÁZÁXÁD°Á AiÁÁÁZÁVZÉ?

Which substance is mixed as a adultrant in ghee?

11) xÉgÁQÉi aÁVÁU CrÉÁi°ÁEÁÖEiUÁ MAZÁEÁZÁ PÁÁiÁÖ°EÁB SgÉ-Áj

2 x 6 = 12

Write one function of hormone Thyroxin and Adrenaline

12) aÁÁEÁEÁPÁEÁPÁgÁ°Á°ÁÇ ¥ÁZÁ±Á aÁVÁU CAZÁEÁ±UÁVgÁ°Á JgÁÁ ¥ÁÁÁR aÁVÁU „ÁUÁEÁB SgÉ

Write any two differences between yellow spot and blind spot of human eye.

13) aÁÁEÁEÁDgEÁUÁZÁ aÁÁ-É ¥ÁEÁE° ¥J UÁ°ÁUÁEÁB GAI ÁÁÁqÁ°Á ««ZÁ aÁÁ°EÁUÁEÁB °ÉJ „Á.

Name the different types of pollutions that effect human health.

