



# PEMERINTAH KABUPATEN TAPANULI TENGAH

## SMA NEGERI 1 MATAULI PANDAN

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### TES BIDANG AKADEMIK

#### PENERIMAAN PESERTA DIDIK BARU T.P. 2013/2014

Hari/Tanggal : Minggu, 03 Maret 2013  
Mata Pelajaran : 1. IPA  
Waktu : 2. Bahasa Inggris  
Sesi ke : 10.30 – 12.30 WIB ( 120 Menit )  
              : 02

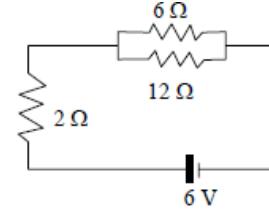
**Mata Pelajaran : IPA**

Pilihlah jawaban yang benar pada soal dibawah ini !

1. Sebuah transformator memiliki 500 lilitan pada kumparan primernya dan 150 lilitan pada kumparan sekundernya. Jika tegangan primernya 220 volt, maka tegangan sekundernya adalah....  
A. 66 volt  
B. 6,6 volt  
C. 0,66 volt  
D. 0,066 volt
2. Pernyataan yang benar bahwa matahari bergerak dari timur ke barat adalah....  
A. Akibat rotasi bumi dan gerak semu harian  
B. Akibat revolusi bumi dan gerak semu harian  
C. Akibat adanya aphelium dan perihelium  
D. Akibat adanya planet – planet matahari
3. Di kota Manokwari yang terletak pada posisi  $140^\circ$  BT pada hari Senin pukul 06.00. di kota Medan yang terletak pada posisi  $100^\circ$  BT adalah....  
A. Senin pukul 08.00  
B. Selasa pukul 06.00  
C. Senin pukul 05.00  
D. Senin pukul 04.00
4. Hujan asam menyebabkan rusaknya batu pualam. Peristiwa ini merupakan contoh peristiwa pelapukan....  
A. Biologi  
B. Fisik  
C. Kimia  
D. Organik
5. Perhatikan gambar dibawah ini !  

A	B	C	D
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Jika kutub B dan kutub C didekatkan terjadi tarik-menarik, maka pernyataan yang tepat adalah....  
A. A kutub utara dan C kutub utara  
B. A kutub selatan dan D kutub utara  
C. A kutub selatan dan D kutub selatan  
D. A kutub utara dan B kutub utara
6. Dua benda bermuatan sama di udara pada jarak 10 cm mengalami gaya tolak - menolak 6 N. Bila kedua benda tersebut didekatkan menjadi 5 cm, maka gaya tolak - menolaknya menjadi....  
A. 2,4 N  
B. 4,4 N  
C. 20 N  
D. 24 N
7. Rangkaian listrik tertutup di samping ini dialiri arus listrik selama 1 menit. Besar energi yang dihasilkan oleh rangkaian tersebut adalah....  
A. 300 J  
B. 320 J  
C. 360 J  
D. 390 J
8. Sepotong kawat aluminium mempunyai hambatan jenis  $2,50 \times 10^{-8} \Omega m$  digunakan sebagai penghantar pada jaringan listrik sepanjang 200 m. Jika luas penampang kawat  $1mm^2$  maka besar hambatan kawat tersebut adalah ....  
A.  $0,5 \Omega$   
B.  $1 \Omega$   
C.  $1,5 \Omega$   
D.  $5 \Omega$



9. Sebuah baterei mempunyai ggl 9 volt dengan hambatan dalam  $0,5 \Omega$ . Baterei tersebut dihubungkan dengan sebuah hambatan luar  $17,5 \Omega$ , maka kuat arus listrik yang mengalir pada rangkaian tersebut adalah ....
- 5 A
  - 2 A
  - 1 A
  - 0,5 A
10. Sebuah bola lampu bertuliskan 100 W/ 220 V. Jika lampu tersebut dipasang pada tegangan 110 V, maka daya yang dihasilkan lampu adalah....
- 100 W
  - 50 W
  - 25 W
  - 10 W
11. Empat orang mengeluarkan gaya yang sama besar untuk mendorong mobil sejauh 12 m. Jika energi yang diperlukan agar mobil berjalan sebesar 24.000 J, maka gaya masing – masing orang adalah ....
- 500 N
  - 400 N
  - 300 N
  - 200 N
12. Tekanan udara di kota A adalah 75 cmHg, maka ketinggian kota A tersebut dari atas permukaan air laut adalah....
- 10 m
  - 100 m
  - 750 m
  - 1000 m
13. Seorang penyelam memperoleh tekanan 60.000 Pa. Jika percepatan gravitasi bumi  $10 \text{ m/s}^2$  dan massa jenis air laut  $1.200 \text{ kg/m}^3$ , maka penyelam tersebut mencapai kedalaman....
- 5 m
  - 10 m
  - 15 m
  - 50 m
14. Es yang memiliki volume  $800 \text{ cm}^3$ , terapung di dalam air. Apabila massa jenis es  $0,9 \text{ g/cm}^3$  dan massa jenis air  $1 \text{ g/cm}^3$ , maka volume es yang muncul di atas permukaan air sebesar....
- $40 \text{ cm}^3$
  - $80 \text{ cm}^3$
  - $160 \text{ cm}^3$
  - $250 \text{ cm}^3$
15. Udara dalam ruang tertutup mempunyai volume 25 liter dengan tekanan 5 atmosfer. Pada suhu tetap volume udara dikecilkan menjadi  $\frac{1}{4}$  mulamula. Maka tekanannya menjadi ....
- 1,5 atmosfer
  - 6,5 atmosfer
  - 10,0 atmosfer
  - 20,0 atmosfer
16. Salah satu gejala akibat mengkonsumsi bahan adiktif adalah Euphoria. Yang dimaksud Euphoria adalah ....
- Kegembiraan yang berlebihan
  - Gejala pada saraf pusat untuk memperlambat proses dalam tubuh
  - Timbulnya khayalan pada pemakai
  - Menambah kekuatann pada pemakai
17. Data ciri-ciri tumbuhan :
- Berakar serabut
  - Batang umumnya bercabang
  - Tulang daun menyirip atau menjari
  - Bagian bunga berjumlah 3 kelipatannya
  - Batang memiliki kambium
  - Berkas pengangkutan pada batang tersusun terbuka dan teratur
- Ciri-ciri yang dimiliki oleh tumbuhan *Mangifera indica* (mangga) adalah ....
- 1, 2, 4 dan 5
  - 2, 3, 4 dan 5
  - 2, 3, 5 dan 6
  - 3, 4, 5 dan 6
18. Perhatikan gambar
- 

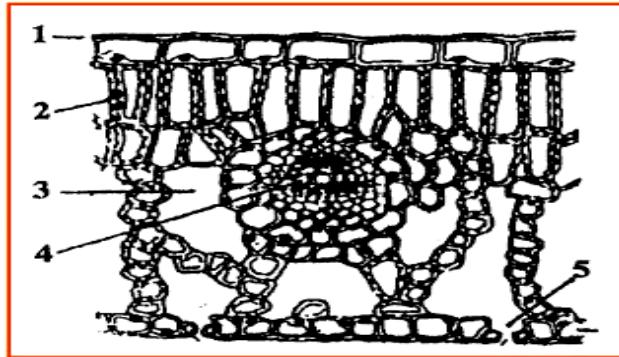
Sumber Gambar:

[http://4.bp.blogspot.com/-t3FO7br5rvQ/T3kpofU\\_yAI/AAAAAAAHOhg/\\_iagwGsu1EI/s1600/arimau.jpg](http://4.bp.blogspot.com/-t3FO7br5rvQ/T3kpofU_yAI/AAAAAAAHOhg/_iagwGsu1EI/s1600/arimau.jpg)

Papan nama yang tepat untuk diletakkan di depan kandang hewan di samping ini, adalah:

- Ordo : Carnivora Species : *Panthera tigris*
- Ordo : Herbivora Species : *Panthera tigris*
- Ordo : Carnivora Species : *Panthera Tigris*
- Ordo : Carnivora Species : *Panthera tigris*

19. Perhatikan gambar penampang melintang daun berikut!



Sumber Gambar:

<http://4.bp.blogspot.com/-ddVUt7Ay058/T3RQFZOKPnI/AAAAAAAODY/9bzRuFzlBml/s1600/palisade+daun.jpg>

Bagian daun yang berfungsi untuk mengangkut air dan mineral dari dalam tanah adalah ....

- A. 2
- B. 3
- C. 4
- D. 5

20. Jaringan pada tumbuhan yang berfungsi sebagai jaringan penguat adalah ....

- A. Epidermis
- B. Parenkim
- C. Sklerenkim
- D. Kambium

21. Perhatikan ciri-ciri sel darah berikut ini !

- 1) Tidak berinti
- 2) Bentuk sel pipih
- 3) Mengandung hemoglobin
- 4) Berumur kurang lebis 120 hari
- 5) Jumlah 5000/ ml darah

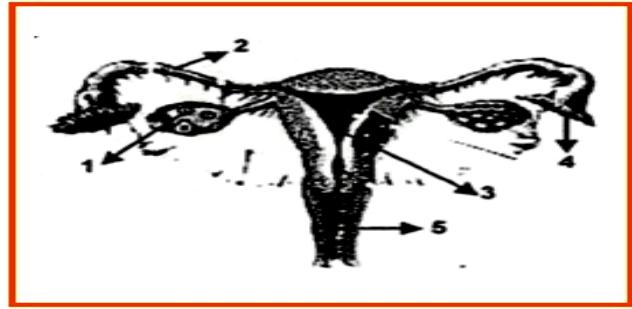
Yang merupakan ciri- ciri eritrosit adalah ....

- A. 1 – 2 – 3
- B. 2 – 3 – 4
- C. 1 – 3 – 4
- D. 3 – 4 – 5

22. Pernyataan yang benar tentang perbedaan otot lurik dengan otot polos adalah ...

	Otot polos	Otot lurik
A.	Bekerja di bawah kesadaran	Bekerja diluar kesadaran
B.	Melekat pada rangka	Penyusun organ dalam
C.	Bentuk sel gelendong	Bentuk sel serabut
D.	Inti sel banyak	Inti sel satu

23. Perhatikan gambar di bawah ini!



Sumber Gambar :

<http://2.bp.blogspot.com/-cxdrNfCwSow/T2AEiE0Cjol/AAAAAAAANvU/EE6DaLcEWhU/s1600/organ+kelamin+wanita.jpg>

Ovarium dan fimbriae ditunjukkan dengan nomor ....

- A. 1 dan 2
- B. 1 dan 4
- C. 2 dan 3
- D. 3 dan 4

24. Hormon yang berperan dalam pengaturan siklus menstruasi adalah ....

- A. Esterogen dan insulin
- B. Progesteron dan testosteron
- C. Adrenalin dan insulin
- D. Esterogen dan progesteron

25. Jika letak sentromer terletak di ujung lengan kromosom, maka bentuk kromosom tersebut disebut ....

- A. Telosentrik
- B. Akrosentrik
- C. Metasentrik
- D. Submetasentrik

26. Mikoriza merupakan organisme hasil simbiosis antara ....

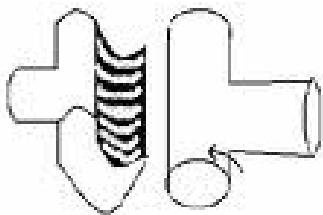
- A. Spirogyra dan Bryophyta
- B. Ascomycota dan Hepaticopsida
- C. Musci dengan akar Spermatophyta
- D. Ascomycota dengan akar Spermatophyta

27. Isu yang sedang hangat saat ini mengenai lingkungan adalah "global warming". Salah satu penyebabnya adalah efek rumah kaca yang diakibatkan oleh ....

- A. Pencemaran udara oleh CFC
- B. Pembangunan gedung berkaca yang tinggi
- C. Pencemaran udara oleh belerang dan nitrogen
- D. Pencemaran udara oleh karbondioksida

28. Tingkat erosi di daerah aliran sungai (DAS) Cijolang 110,41/ton/ha/th dan DAS Cisanggarung 54 ton/ha/th, sementara itu ambang batas erosi yang diperbolehkan masing-masing 6 ton/ha/th dan 7,25 ton/ha/th. Kondisi ini dapat menyebabkan pendangkalan sungai sehingga terjadi banjir pada musim hujan. Upaya yang harus dilakukan untuk mengatasi masalah tersebut adalah ....
- Meluruskan sungai sehingga laju air meningkat
  - Membuat aturan pembuangan limbah dari pabrik
  - Membuat tanggul di sepanjang daerah aliran sungai
  - Melakukan reboisasi di sepanjang daerah aliran sungai.

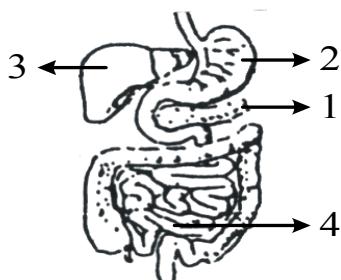
29. Perhatikan gambar berikut!



Gerakan yang dimungkinkan oleh skema sendi diatas adalah...

- Ke satu arah atau berporos tunggal
- Gerakan bebas
- Ke kiri atau ke kanan
- Menggeser atau tidak berporos

30. Perhatikan gambar berikut ini !



Enzim enterokinase dihasilkan oleh organ nomor....

- 1
- 2
- 3
- 4

### Mata Pelajaran : Bahasa Inggris

Pilihlah jawaban yang benar pada soal dibawah ini !

**Read the text carefully, and then choose the correct answer A, B, C, or D in you answer sheet!**

#### Text 1

##### Pooh and the Honey Pot

Apart from seeing Christopher Robin, there is nothing Pooh likes better than eating honey. So when Christopher brought Pooh some honey one day, Pooh was doubly happy! "Don't eat the honey all at once," said Christopher. "Put it in a safe place in case a Heffalump\* comes along and tries to steal it!"

Christopher was only joking, of course, but Pooh took it seriously. He did put the honey in a safe place, and then he went to bed and fell fast asleep. But he began to dream that a Heffalump was trying to steal his honey!

Pooh awoke with a surprise and ran to his cupboard. And the pot of honey wasn't there! "Oh, no," cried Pooh. "I wasn't dreaming! There really is a Heffalump here in my house!"

Making noises which he hoped would frighten the Heffalump; Winnie-the-Pooh looked under the bed. Well, he didn't find a Heffalump, but he did find his pot of honey!

"Silly me!" he laughed. "That's where I put the honey to keep it safe! Still, a safer place would be in my *tummy!*" So he ate the honey, and then fell asleep again.

\*) Heffalump = *an ugly looking monster.*

- What does Pooh like better?
  - Seeing Christopher Robin.
  - Eating honey.
  - Playing with his friends.
  - Taking any chances.
- Which of the following statements is NOT TRUE according to the story?
  - Christopher Robin gave Pooh some honey.
  - Pooh kept the honey in a safe place.
  - Heffalump had stolen Pooh's honey.
  - Pooh was dreaming about Heffalump.
- "... a safer place would be in my *tummy!*" (Last Paragraph)  
What does the underlined word mean?  
  - Honey
  - pot
  - stomach
  - bed

## Text 2 : 34 - 36

### My Day

I had a terrible day yesterday. First, I woke up an hour late because my alarm clock didn't go off. Then, I was in such a hurry that I burned my hand when I was making breakfast. After breakfast, I got dressed so quickly that I forgot to wear socks. Next, I ran out of the house trying to get the 9:30 bus, but of course I missed it. I wanted to take a taxi, but I didn't have enough money. Finally, I walked the three miles to my school only to discover that it was Sunday! I hope I never have a day as the one I had yesterday.

34. Why did he wake up an hour late?

- A. Because he didn't set alarm clock.
- B. Because his alarm clock didn't go off.
- C. Because he didn't see alarm clock.
- D. Because his alarm clock didn't work.

35. What did he do after having breakfast?

- A. He got dressed so quickly that he forgot to wear socks.
- B. He wore socks so quickly that he forgot to get dressed.
- C. He ran out of the house trying to get the 9:30 bus.
- D. He burned his hand when he was making breakfast.

36. What does the writer hope?

- A. The writer hopes to discover that it was Sunday.
- B. The writer hopes to take a taxi.
- C. The writer hopes he never had a day like yesterday.
- D. The writer hopes that yesterday will be better.

## Text 3 : 37 - 40

### A Clear Conscience

The whole village soon learnt that the large sum of money had been lost. Sam Benton, the local butcher, had lost his wallet while taking his savings to the post-office. Sam was sure that the wallet must have been found by one of the villagers, but it wasn't returned to him. Three months passed, and one morning, Sam found his wallet outside his front door. It had been wrapped up in a newspaper and it contained half of the money he had lost, together with a note which said: 'A thief, yes, but only 50 percent a thief!' Two months later, some more money was sent to Sam with another note: 'Only 25 percent a thief now!'

In time, all Sam's money was paid back in this way. The last note said: "I am 100 percent honest now!"

37. The topic of the text above is . . . .

- A. Sam Benton the local butcher
- B. A villager stole a large sum of money
- C. A thief who paid back the money he stole
- D. Sam found his wallet outside his door

38. Which statement is NOT TRUE according to the text?

- A. The thief included a note every time he sent Sam money
- B. The whole village knew that Sam had lost his wallet
- C. Three months had passed when Sam received all his money
- D. May be the man was not really a thief but he need the money badly

39. 'It had been wrapped up in a newspaper' (line 5, par. 1). The word it in this sentence refers to ....

- A. A note
- B. Sam's wallet
- C. Savings
- D. All of Sam's money

40. The thief wrote on one of his notes: "Only 25 percent a thief now!" What does he mean?

- A. He had returned 25% of Sam's money
- B. He had returned 75% of Sam's money
- C. He had returned 50% of Sam's money
- D. He had returned 55% of Sam's money

## Text 4 : 41 - 44

Complete the following text with the words available!

How does television affect our lives? It can be very helpful to people who carefully choose the shows that they watch. Television should 41)..... our knowledge of the outside world; there are high quality program that help us understand many fields of study: science, 42) ....., arts and so on. Moreover, television benefits 43)..... people who can't often leave the house, as well as patients in hospitals. It also offers non-native speakers the advantage of daily informal language practice; they can increase their vocabulary and practice teaching. On the other hand, there are several serious disadvantages to television. Of course, it provides us with a 44)..... way to relax and spend our free time, but in some countries, people watch the 'boob tube' for an average of six hours or more a day.

41. A. Increase      B. Decrease

C. Incredible      D. Deceased

42. A. Medical      B. Medic

C. Medicinal      D. Medicine

43. A. Elder      B. Elderly

C. Older      D. Eldest

44. A. Pleasure      B. Please

C. Pleasant      D. Pleasantry

45. When Tom arrived, we were having dinner. This sentence means . . . .
- Tom arrived and then we had dinner
  - Tom arrived and then we will have dinner
  - We had already started dinner before Tom arrived
  - We had not had dinner when Tom arrived
46. The soldier . . . the flag when he heard the bugle blow.
- rise
  - rose
  - raised
  - risen
47. Before Mira . . . a letter for his grandfather, he . . . a gift.
- wrote, had bought
  - writes, bought
  - had written, bought
  - had written, had bought
48. Dena : I think I have left my book in your house. Have you seen it?  
Nisa : No, but I'll have a look ..., I will give it to you.
- If I found it
  - If I have found it
  - If I had found it
  - If I find it
49. Nanda : Are you going to invite Bill to the party?  
Wina : No, if .....  
A. I invited Bill to the party, I would have to invite Linda too.  
B. I invited Bill to the party, I would had to invite Linda too.  
C. I invited Bill to the party, I will have to invite Linda too.  
D. I invite Bill to the party, I won't have to invite Linda too.

#### Text 5 : 50 - 52

##### HOW TO SAVE MONEY IN THE BANK

- First, go to the slip counter.
- Then, take a deposit slip.
- After that, fill out the deposit slip by writing your account number, the address and the amount of money to be saved.
- Bring it to the teller window.
- Give the teller the money and wait for her/him to count print your transaction in your deposit book.
- Take the deposit book back.

50. Which is **not** done when filling out the deposit slip?
- Write the account number.
  - Write down the amount of the money to be saved.
  - Wait for the teller to give the deposit book.
  - Put the address.
51. The text above is meant ....
- to give instructions on how to save money in a bank.
  - to retell the experience in saving money in a bank.
  - to give information about the teller.
  - to describe how the bank works.
52. "Bring *it* to the teller window." The word 'it' refers to ....
- the money
  - the deposit slip
  - the address
  - the account number

#### Text 6 : 53 , 54

##### Announcement

Because of the high demand for electrical power due to the extremely cold weather, the city is facing a serious power shortage. We are asking residents to help us avoid this situation. Please reduce your power consumption as much as possible. Lower household heat to sixty degrees. Turn off all unnecessary appliances. Postpone energy-consuming tasks such as the laundry.

53. The announcement is addressed to ....
- The residents of the city.
  - The companies in the city
  - The officials that work in the city
  - The employees of the electricity company
54. The announcement is about ....
- A serious power shortage in the city
  - The high demand for electrical power
  - The extremely cold weather in the city
  - The demand to postpone energy-consuming tasks

**Text 7 : 55 - 58****A Clear Conscience**

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- C. Three months had passed when Sam received all his money
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57. 'It had been wrapped up in a newspaper' (line 5, par. 1). The word it in this sentence refers to ....

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- B. Sam's wallet
- C. Savings
- D. All of Sam's money

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- A. He had returned 25% of Sam's money
- B. He had returned 75% of Sam's money
- C. He had returned 50% of Sam's money
- D. He had returned 55% of Sam's money

59. Prita : ..... ?

Dina : No, I haven't seen it yet but I'm going to see it.

- A. Are you going to see the new film at the local cinema
- B. Had you seen the new film at the local cinema
- C. Have you seen the new film at the local cinema
- D. Will you see the new film at the local cinema

60. Bella : Look at the dark clouds!

Dani : Yes, I think ....

Bella : Yup, I think so.

- A. it is raining
- B. it will rain
- C. it is going to rain
- D. it must rain