

Bangladesh International School & College
Question Bank for Final Exam-2018
STD-VII (Int'l)
Bangla

১। শব্দার্থ- ১০ টি

১x১০=১০

- ১। প্রভূত- প্রচুর।
- ২। ভূসম্পত্তি- জমিজমা।
- ৩। সামাজিক প্রতিষ্ঠা- সমাজে গৌরবময় অবস্থান।
- ৪। শোচনীয়- খুব দুঃখজনক।
- ৫। প্রবল- প্রচণ্ড, তীব্র।
- ৬। আগ্রহ- ইচ্ছা।
- ৭। অনুপ্রেরণা- উৎসাহ।
- ৮। খণ্ড- ভাগ, অংশ।
- ৯। অনুকূলে- পক্ষে।
- ১০। নিরলস- যার অলসতা বা কুঁড়েমি নেই।
- ১১। স্বাবলম্বী- যে নিজেই নিজের অবলম্বন।
- ১২। দূরদৃষ্টি- দূরকে দেখার দৃষ্টি।
- ১৩। বিংশ- বিশ বা কুড়ি।
- ১৪। অগ্রদূত- পথপ্রদর্শক।
- ১৫। দৃশ্য- নাটক বা নাটিকায় বিষয়গুলোকে ঘটনাশ্ল অনুসারে ভাগ করে নেয়া হয়। এক-একটি ঘটনাশ্লকে 'দৃশ্য' বলা হয়।
- ১৬। মতলব- উদ্দেশ্য বা ফন্দি।
- ১৭। খাদি- হাতে কাটা সুতা দিয়ে তৈরি কাপড়।
- ১৮। পদবি- উপাধি, যা নামের শেষে যোগ করে বংশ পরিচয় দেওয়া হয়।
- ১৯। জুম- পাহাড়ে চাষাবাদের বিশেষ পদ্ধতি।
- ২০। বয়ন- বোনা।
- ২১। শতেক- একশত।
- ২২। সমুল্লত- অনেক উঁচু।
- ২৩। বিপুল- বিশাল।
- ২৪। প্রসারিত- বিস্তার লাভ করেছে এমন।
- ২৫। অনন্ত- যার অন্ত বা শেষ নেই।
- ২৬। মহীয়ান- সুমহান।

- ২৭। সংগ্রাম- লড়াই।
 ২৮। প্রজ্ঞা- গভীর জ্ঞান।
 ২৯। দীপ্তিমান- উজ্জ্বল।
 ৩০। সিন্ধু- সমুদ্র।
 ৩১। কেতন- পতাকা।
 ৩২। মেলা- মিলন বা একত্র হওয়া।
 ৩৩। সুবাস- সুগন্ধ।
 ৩৪। নিত্য- রোজ।
 ৩৫। অক্ষর- অক্ষর বলতে এখানে বর্ণ এবং বৃহৎ অর্থে মাতৃভাষা বোঝানো হয়েছে।
 ৩৬। নির্বর- ঝরনা।
 ৩৭। উপমা- তুলনা।
 ৩৮। অপরূপ- খুব সুন্দর।
 ৩৯। নূপুর- পায়ে পরার অলংকার।

২। পরিভাষা- ১০ টি

১X১০=১০

1. Agenda- কর্মসূচি
2. Air- conditioned- শীতাতপ নিয়ন্ত্রিত
3. Educationnist- শিক্ষাবিদ
4. Methodical- প্রণালিবদ্ধ
5. Manager- ব্যবস্থাপক
6. Rank- পদমর্যাদা
7. News Media- সংবাদ মাধ্যম
8. Editor- সম্পাদক
9. Cattle- গবাদিপশু
10. Document- দলিল, দস্তাবেজ
11. Eligible- যোগ্য
12. Expert- দক্ষ
13. Graph- চিত্র
14. Handicraft- হস্তশিল্প
15. Joint Family- একাঙ্গবর্তী পরিবার
16. Family Tradition- পারিবারিক ঐতিহ্য
17. Scripture- ধর্মশাস্ত্র
18. Experienced- অভিজ্ঞ

19. Trainer- প্রশিক্ষক
20. Patronization- পৃষ্ঠপোষকতা
21. Democracy- গণতন্ত্র
22. Ambassador- রাষ্ট্রদূত
23. Technique- কৌশল
24. Art and Craft- চারু ও কারুকলা
25. Convention- সম্মেলন
26. Lawyer- আইনজীবী
27. Nostalgia- স্মৃতিবিধুরতা
28. Resource- সম্পদ
29. Recommendation- সুপারিশ
30. Reaction- প্রতিক্রিয়া
31. Plan- পরিকল্পনা
32. Photograph- আলোকচিত্র
33. Progressive- প্রগতিশীল
34. Protocol- সৌজন্যবিধি
35. Promotion- পদোন্নতি
36. Parliament- সংসদ
37. Solo- একক
38. Serial- অনুক্রম
39. Suspense- উৎকণ্ঠা
40. Vitamin- খাদ্যপ্রাণ

৩। সংক্ষেপে উত্তর- ১০ টি

২x১০=২০

- ১। মেধাবী রোকেয়ার কোথায় জন্ম হয় এবং কোন বিষয়ের প্রতি তাঁর আগ্রহ ছিল?
- ২। বিশ শতকের শুরুর দিকে বাঙালি মুসলমান সমাজের অবস্থা কেমন ছিল?
- ৩। রোকেয়া কখন মেয়েদের শিক্ষার জন্য আন্দোলন গড়ে তোলেন?
- ৪। রোকেয়া সাখাওয়াত হোসেন কেন একজন অসাধারণ নারী?
- ৫। বাঙালি মুসলমান মেয়েদের শিক্ষিত করার জন্য রোকেয়া কোন পদক্ষেপ অবলম্বন করেছিলেন?
- ৬। 'আঞ্জুমানে খাওয়াতিনে ইসলাম'-থেকে কী কী কাজ করা হত?
- ৭। বেগম রোকেয়া কীভাবে নারীদের মুক্তির পথ দেখেছিলেন?
- ৮। আমরা কোন শিশুদের 'বিশেষ চাহিদা সম্পন্ন' শিশু বলি?
- ৯। কেন বিদ্যালয়ে হেঁটে আসতে আরজুর খুব কষ্ট হয়?

- ১০। আরজু, সোমেন ও সাবু কেন শিক্ষকের কাছে বকুনি খায়?
- ১১। একদিন স্কুলে যাওয়ার পথে আরজুর কী হয়েছিল?
- ১২। ক্ষুদ্র জাতিসত্তা কী?
- ১৩। সংস্কৃতি কী?
- ১৪। কোন ভাষাকে আর্ঘ্যভাষা বলা হয়?
- ১৫। কোন ধরনের পরিবার পিতৃতান্ত্রিক?
- ১৬। কোন পরিবারকে মাতৃতান্ত্রিক পরিবার বলে?
- ১৭। মানুষ কীভাবে এই পৃথিবীতে তার বিজয় ঘোষণা করেছে?
- ১৮। সকল মানুষের মধ্যে কেমন পরিবেশ সৃষ্টি করতে হবে?
- ১৯। সুফিয়া কামাল কোন আন্দোলনে সক্রিয়ভাবে অংশগ্রহণ করেন?
- ২০। সুফিয়া কামাল কোন আন্দোলনে অগ্রণী ভূমিকা পালন করেছেন?
- ২১। সুফিয়া কামাল কোন বিষয়ে সব সময় সোচ্চার ছিলেন?
- ২২। উন্নত দেশ হিসেবে প্রতিষ্ঠা পেতে হলে কী করতে হবে?
- ২৩। ‘আর এক মেলা জগৎ জুড়ে’- চরণটির অর্থ কী?
- ২৪। তার মাঝেই একটি সুরে.....মিলিয়ে- এই চরণে কী বোঝানো হয়েছে?
- ২৫। শিশু-কিশোররা কীভাবে বিশ্ব জুড়ে নবীন প্রাণের আশার আলো ছড়িয়ে দেয়?
- ২৬। কচি সবুজ ভাইবোনেরা কেমন পৃথিবী গড়তে চাইছে?
- ২৭। কখন এই পৃথিবী অনেক সুন্দর হবে?
- ২৮। ‘এই অক্ষর যেন নির্ঝর ছুটে চলে অবিরাম’- চরণটির অর্থ কী?
- ২৯। ‘এই অক্ষরে মাকে মনে পড়ে’- চরণটিতে কী বোঝানো হয়েছে?
- ৩০। শিলালিপি কী?
- ৩১। এই ভাষা দিয়ে গান লিখে নিয়ে যুদ্ধ করেছি জয়- এই পঙক্তির অর্থ কী?

৪। ইংরেজি বাক্যের বাংলায় অনুবাদ-১০ টি

২x১০=২০

Translation of Detached Sentences: Pg.No-284 (Full Page)

৫। ইংরেজি অনুচ্ছেদের বাংলায় অনুবাদ- ১ টি

১২x১=১২

Passage Translation :

1. Page No. 297, Passage No. 10
2. Page No. 317, Passage No. 12

৬। চিঠি - ১ টি

১৩x১=১৩

- ১) এবার গ্রীষ্মের ছুটি কীভাবে কাটিয়েছ তার বর্ণনা দিয়ে বন্ধুর কাছে একটি চিঠি লেখো।
- ২) বাংলা নববর্ষ কীভাবে উদযাপন করেছো তার বর্ণনা দিয়ে বন্ধুর কাছে একটি চিঠি লেখো।

৭। রচনা - ১ টি (২০০ শব্দ)

১৫x১=১৫

ক) একটি বৃষ্টির দিন

খ) কাজের আনন্দ

গ) মাতা-পিতার প্রতি সম্মানের দায়িত্ব ও কর্তব্য

ঘ) বিজয় দিবস

ঙ) শিশুর অধিকার

Holiday Homework

Class: Std. VII (Int'l), Subject: Chemistry

Chapter 11: Products from Oil

- 1) What is fossil fuel? Give example.
- 2) What is crude oil? How it was formed?
- 3) Draw and describe the fractional distillation of crude oil.
- 4) What is fraction? Write one use of each of the fractions.
- 5) What is cracking? Give example.
- 6) What is complete and incomplete combustion reaction?
- 7) What are the differences between complete and incomplete combustion reactions?
- 8) Why it is dangerous to inhale CO for human?
- 9) What is acid rain?
- 10) What are the bad effects of acid rain? How to prevent acid rain?

Chapter 13: Carbon Chemistry

- 1) What is hydrocarbon? Give example.
- 2) Write the classification of hydrocarbons.
- 3) What is isomer? Give example.
- 4) Draw the isomers of C_4H_{10} .
- 5) What is homologous series?
- 6) Write the 5 members of the following homologous series with general formula:
 - a. Alkanes
 - b. Alkenes
 - c. Alcohols
- 7) What is functional group? Give example.
- 8) Write the following reactions:
 - a. Combustions of alkanes and alkenes
 - b. Substitution reaction of alkanes
 - c. Fermentation
 - d. Hydration of ethene
 - e. Identification of unsaturated hydrocarbons.

Chapter 19, 20 & 21: Bonding (Ionic, Covalent & Metallic)

- 1) What is bond?
- 2) Why does an atom form bond?
- 3) How does an atom get stability?
- 4) What are the types of bonding?
- 5) What is covalent and ionic compound? Give example.
- 6) Write the properties of ionic and covalent bonding.
- 7) Draw the dot-cross diagram of the following:

a) H_2	f) H_2O	k) $MgCl_2$
b) Cl_2	g) CO_2	l) MgO
c) O_2	h) CH_4	m) CaO
d) N_2	i) C_2H_6	n) $AlCl_3$
e) HCl	j) $NaCl$	o) Na_2O

- 8) How does CH₄ form?
- 9) How does NaCl form?
- 10) What is ionic lattice?
- 11) Why does an ionic compound have melting and boiling point?
- 12) What is simple compound? What are the properties of simple compound?
- 13) What is giant covalent structure?
- 14) What are the differences between diamond and graphite?
- 15) Draw the structure of diamond and graphite.
- 16) What is metallic bond?
- 17) Draw the structure of metal.
- 18) Why do alloys are stronger than pure metal?

Chapter 26: Moles

- 1) What are moles?
- 2) What is Avogadro number?
- 3) Calculations:
 - a. Find the number of atom/molecules:**
 - i. 2.0 moles of H atoms
 - ii. 0.0005 moles of O₂ molecules
 - iii. 0.004 moles of CO₂ molecules
 - b. Find the moles of the following:**
 - i. 6×10^{23} molecule of H₂O
 - ii. 2.4×10^{24} molecule of H₂
 - iii. 1.2×10^{21} molecule of CO₂
 - c. Find the moles of the following:**
 - i. 5 g of H₂ molecules
 - ii. 11 g of CO₂ molecules
 - iii. 49 g of H₂SO₄ molecules
 - d. Find the mass of the following:**
 - i. 5.0 moles of H₂O
 - ii. 0.05 moles of O₂
 - iii. 0.002 moles of H₂SO₄

Note:

- If you follow the class work, you will be able to answer around 80%
- If you follow book and class work, CT, ST and little MORE you will get 100%

.....END....

Holiday Homework

Class: VII (Intl), Subject: English Language

1. **Exercise:**

1, 2, 3 (Page 100, 101)

2. **Exercise:**

2, 3, 6 (Page 102, 105)

3. **Essay-**

- a) Comparison of line spent with your siblings verses with your schoolmates.
- b) The season I like most
- c) Value of time
- d) Population Problem in Bangladesh
- e) Benefits of physical exercises, games and sports

Holiday Homework

Class: VII (Intl), Subject: English Literature

Journey to the Centre of the Earth: (chapter: 1- 25)

Word meaning:

1. fuss- a quarrel
2. culinary- relating to or used in cooking
3. irascible – hot tempered
4. eccentric – having an unusual and odd personality
5. formidable- inspiring fear
6. recalcitrant – stubborn
7. impetuous- violent
8. Bulge out- come out
9. brusque- rude
10. hanker after - desire
11. meticulous- perfect
12. fritter away- to spend unwisely
13. ensconce– to fix firmly
14. rummage – to search haphazardly
15. facsimile- exact copy
16. polyglot- a person who speaks more than one language
17. irreverent- disrespectful
18. savant- learned
19. decipher– to translate or interpret
20. baffled – perplexed
21. presentiment- a feeling of evil to come
22. gesticulate- show or express through movement
23. decapitate- to cut the head of
24. audacity- aggressive boldness/ daring
25. decipher- to convert code into ordinary language/translate
26. indefatigable- tireless
27. invincible – unable of being overcome
28. indignantly- angrily
29. transfigure- to change completely the nature or appearance
30. appease- to overcome
31. hoax – fraudulence
32. foolhardy – reckless
33. incandescent- emitting light as a result of being heated
34. terrestrial- earthly
35. refute- prove to be false
36. fissure- narrow opening

37. vertigo - dizziness
38. alight- to come down
39. equilibrium – balance
40. skirt- to avoid
41. robust – strong
42. vernacular- language of a particular group
43. persecute- to oppress
44. supple- moving and bending with ease
45. indolent- lazy
46. reckon- to calculate
47. fringed- surrounded
48. avarice- greed
49. meagre- narrow
50. hardy- able to survive under unfavorable condition
51. confounded- confused
52. subterranean- being under the surface of the
53. dilapidated – broken
54. pervade- to spread
55. taciturnity – modesty
56. protrude – to extend out
57. ecclesiastic – a clergyman
58. exhalation – discharge
59. offing- near future
60. behove- be appropriate/ necessary
61. crestfallen- disappointed
62. abreast – alongside each other
63. recapitulate – to summarize briefly
64. devoid of – free of
65. agile- speedy/ active
66. intrusive – hostile
67. incontrovertible- impossible to deny
68. diminish – to decrease
69. asunder – into pieces
70. ebb away- flow back
71. quench – to overcome/ to satisfy
72. desertion – withdrawing support

Sentence Making :

irascible recalcitrant impetuous formidable hanker after rummage fritter away meticulous irreverent decipher audacity indefatigable indignantly appease eccentric	foolhardy alight skirt robust indolent reckon fringed avarice meager confounded pervade dilapidated offing taciturnity	recalcitrant impetuous formidable hanker after rummage fritter away meticulous irreverent decipher audacity indefatigable indignantly	devoid of agile intrusive diminish
---	---	--	---

Short Questions:

Q1. Who was Lidenbrock? What type of person he was?

Q2. How did Axel find the secret key? What was the key?

Q3. Why did Axel want to hide the discovery?

Q4. What were the objections that Axel raised against the document of Arne Saknussem? How did his uncle reply?

Q5. How did Axel react when he was ordered to get ready?

Q6. What was the reason that Saknussem had to hide his discovery? How did he hide?

Q7. Who was Hans ? What type of person he was?

Q8. What was the fear of Axel after coming at the foot of the Sneffel? How did the professor beat him?

Q. 9 .What difficulty did the professor face to recognize the right path at the bottom of the crater? Ultimately how did he find the path?

Q 10. How did Axel and the professor Lidenbrock came upwards instead of going down?

Q 11. Who is Columbus in this story? In what situation he compared himself with Columbus?

Explanation :

1. “ He was a selfish Scholar, a well of science whose pulley creaked when you tried to draw anything out of it . In short, he was a miser.” Pg-3
2. “ The poor man was so possessed by his idea that he had forgotten to lose his temper.” pg-33
3. “ He was living a long way from the earth and quite apart from earthly needs.” g-34
- 4.“ He carried economy of movement to the point of avarice.” Pg-86
5. “Just because the monster has been asleep since 1229, does it follow that it can never wake up again?”pg- 113
6. “ Enough. When science has spoken, it behoves us to be silent” pg-115
- 7.“His one idea was to go on, and he walked, slid, even tumbled with a determination which one could not help admiring” pg-149
- 8.“ You seem just as downhearted as before, and you still express nothing but despair.”pg-165
9. “ Leave me, I tell you. I have begun this journey, and I mean to finish it, or never return.”pg-165
- 10.“ He was fighting with somber determination against the impossible and I could not bear to abandon him at the bottom of this abyss, but on the other hand the instinct of self-preservation urged me to leave him.” Pg-165

Short Note :

1. Professore Lidenbrock
2. Hans
3. Icelandic hospitality
4. The strange perchment
5. Arne Saknussem

Writing broad question answer:

- Q1.** Professor Lidenbrock was a man of strong determination. Explain elaborately.
- Q2.** Do you think Axel was a coward? Justify your opinion with examples .
- Q3.** Give a description of the journey towards Sneffels.

- **Read all the chapters thoroughly for comprehension.**

The Sands Of Dee :

1. Explanation:

“A tress of golden hair,
A drowned maiden's hair
Above the nets at sea?
Was never salmon yet that shone so fair
Among the stakes on Dee.”

2. Summary of the poem

The Road Not Taken : (Will be done after Holiday)

1. Explanation

“Two roads diverged in a wood and I
I took the one less travelled by,
And that has made all the difference.”

2. Summary of the poem

Holiday Homework

Class: VII (Intl), Subject: ICT

CH#10

Internet and its problems

1. Define: Web browser, Nodes, Routers, www, Websites, Webpages, Home page
2. What is plagiarism? Why do people plagiarise? How to avoid plagiarism?
3. What is copyright law? Explain briefly.
4. What are computer viruses? How do viruses affect our computer? How do we protect our computer from viruses? How to avoid viruses?
5. What is a firewall? Explain.
6. Explain malicious software: Worms, Trojan horse, Spyware, hacking
7. What is encryption of messages? Explain three different ways to encrypt data with an example.

CH#11

Introduction to HTML

1. Why do very long web pages do not generally hold the interest of many people?
2. What is HTML?
3. What are some important points we keep in mind before we start building our web page?
4. Write the codes of HTML that show the title, header and body text
Title: Your name
Header: Title of a topic
Body text: Write a few lines about topics
5. Define: hyperlinks, tags

Holiday Homework

Class: VII (Intl), Subject: Maths 1 & 2

Subject: Mathematics-I

Ex	Question No.
9c	1, 7, 8(b, d), 9(b, d, e, h)
9d	Example: (14), 4(b, d, e, f), 6, 8, 9, 10.
10c	Example: (10, 11), 1(d, e, f, g, h, i), 3, 7, 8, 9, 10, 11, 12, 13.
10d	Example: (16), 5, 6, 7, 8, 10, 11, 12.
11e	2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12.
11f	5, 6, 7, 8.
11g	Example: (16), 2, 3, 4, 5, 6, 7, 8, 9.
11h	5, 6, 7, 8, 9, 10, 11.
12e	4, 5, 6, 7, 8, 9.
12f	2, 3, 4, 5, 6, 7, 8, 9, 10, 11.
12g	1, 2, 3, 4.
12h	Example: (28); Page No. 271
14b	all
14c	1, 3, 5.

Subject: Mathematics-II

Ex	Question No.	Ex	Question No.
2d	4, 5.	8f	all
2e	5, 6.	8g	all
2f	10, 11, 12, 13.	8h	all
2g	all	Trigonometry	Prove that,
5e	all		(i) $\sec^2\theta - \tan^2\theta = 1$;
5f	3		(ii) $\operatorname{cosec}^2\theta - \cot^2\theta = 1$;
5g	all		(iii) $\sin^2\theta + \cos^2\theta = 1$.
5h	3, 4.		
8a	all	Theorem	31, 34, 35, 38, 39, 40.
8b	all	Construction	21, 22, 23, 24, 25.
8c	all	Statistics	Page 335 (Example-4)
8d	all	15b	5
8e	all	15e	1

Holiday Homework

Class: VII (Intl), Subject: Physics

1.PRESSURE

- a. In fluids, pressure acts in _____ directions and pressure _____ as the depth increases.
- b. In order to sink in a fluid, the density of an object must be _____ than the _____ of the fluid.
- c. Air pressure can be measured by a mercury _____ the _____ height of the mercury is usually about _____ mm.

2. MORE ABOUT FORCE:

- a. Newton's noticed that forces were _____ in pairs and the two forces were always _____ in size but opposite in _____. He called the two forces action and reaction.
- b. The way of reducing friction to _____ the surfaces with oil. The oil separates the _____ so that they do not _____ each other.

3. VELOCITY AND ACCELERATION

- c. Velocity is almost the same thing as _____ but it is a vector quantity. Velocity has size and a _____.
- d. When the forces on an object are _____, there is a resultant force. This _____ force causes the object to change its _____.

4.WORK, ENERGY, POWER

- a. The work done is equal to the _____ multiplied by the _____ moved.
- b. The principle of _____ of energy says that energy can be _____ from one _____ to another, but it cannot be _____ or _____.

5.MOMENTUM

- c. When two or more bodies _____ on each other, their total momentum remains _____, providing there is no external _____ acting.

d. Newton's third law, the forces are _____ and _____. Therefore the changes in momentum are _____ and opposite.

6.TURNING FORCE

- a. The turning effect of a force is equal to the force multiplied by the _____ distance from the _____ to the _____. Its unit is _____.
- b. The principle of moments states that, in _____, the total _____ are equal to the total _____ .
- c. The Centre of gravity is the point through which the whole _____ of the object seems to act.

MCQ

1) Friction is a force that acts in the _____ direction of the intended motion of an object

A).same

B) parallel

C) opposite.

D) none of the above

2) Friction changes the energy of an object from kinetic energy to _____ energy

A) Electric

B) Stored

C) Solar

D) Heat.

3) In what way can friction be reduced?

A) Using grease

B) Using a wheel

C) All of the above.

D) Using a oil

4) True or False: Different types of surfaces create different amounts of friction.

A) true.

B) false

5) A bowling ball on a bowling lane is an example of what type of friction?

A) Rolling friction.

B) dry friction

C)static friction

D)fluid friction

6) Which law of motion says that when you kick a ball, there is an equal force on your foot as there is on the ball?

A) First Law of Motion

B) Second Law of Motion

C) Third Law of Motion

D) None of them

7) A child sliding down the slide at a park is an example of what type of friction?

A) Rolling friction

B) dry friction.

C)static friction

D)fluid friction

8) A block sitting still on the side of a ramp is an example of what type of friction?

A) Rolling friction

B) dry friction

C)static friction.

D)fluid friction

9) Air resistance on a flying airplane is an example of what type of friction?

A) Rolling friction

B) dry friction

C)static friction

D)fluid friction.

10) In what way does friction help us in our everyday life?

A) Brakes on a car

B) Standing up

C) Climbing a hill

D) All of the above.

11. A _____ is anything that can change the state of motion of an object.

a.Mass

b.Force

c.Weight

d. Velocity

12) In physics, pressure is defined as the _____ over a given area.

A)work

B) velocity

C.)force

D) mass

13) Finish the formula: Pressure = Force divided

-
- a) Time
 - b) area
 - c) Distance
 - d) speed

14) What is the standard unit of measure for pressure?

- A)joule
- B)watt
- C) newton
- D) Pascal

15) Will air pressure be higher on top of a mountain or on the beach?

- A) Beach
- B) Mountain
- C) It's always the same

16) Does water pressure increase or decrease the deeper you are?

- A) Increase
- B) Decrease
- C) Stays the same

17) What type of tool is used to measure air pressure?

- A)Barometer
- B) Pascal meter
- C) Aerometer
- D) Atmosphere meter

- 18) Acceleration is the rate of change of an object's _____.
- a.Speed
 - b.Force
 - c.Velocity
 - d. Momentum
19. What is the standard unit of measurement for acceleration?
- a.Meters
 - b.Meters per second
 - c. second per meter
 - d.meter per second square
20. Acceleration is a vector measurement because it has both a magnitude and a _____.
- a.Direction
 - b.Distance
 - c.Speed
 - d. Temperature
21. According to Newton's Second Law, mass times acceleration equals _____.
- a.Weight
 - b.Force
 - c.Distance
 - d. Time
23. An object with constant acceleration will have an increasing _____.
- a.Mass
 - b.Weight
 - c.Direction
 - d. Velocity
24. True or False: Assuming no air friction, an object in free fall would have constant accelaretion
- a.TRUE
 - b. FALSE

25. The velocity of a plane is 500 miles per hour west. What is the speed of the plane?

- a. West
- b. 500 miles per hour
- c. 250 miles per hour
- d. 500 miles per hour west

26. Power in physics is the rate at which _____ is used.

- A) Current
- B) speed
- C.) energy
- D) force

27. work occurs when a _____ acts on an object to move it some distance from the start point.

- A) Voltage
- B,) Power
- c) Velocity
- d) Energy

28. What is the standard unit of measurement for power?

- a) Watt
- b) Joule
- c) Volt
- d) newton

29) What is the standard unit of measurement for work?

- A) Ampere
- B) Volt

C) Newton

D) Joule

30. What do we call the distance between the start point and the end point?

A) Displacement

B) Line of force

C) Motion

31. you spend 1 hour pushing as hard as you can on a wall, but the wall doesn't move. How much work have you done?

- A) 0 J
- B) 6J
- C) 9 J

32) True or False: Because work is a vector measurement, it has both a magnitude and direction.

- A) true
- B) false

33. What is the equation used for calculating power from force and velocity?

A) Power = force/velocity

B) Power = force * velocity

C) Power = force + velocity

34) power in physics is the rate at which _____ is used.

A) Current

B) Speed

C) Energy

35. calculate power, we use the formula: Power = Work divided by _____.

A) Force

B) Time

C) Velocity

36. Momentum is the measurement of _____ in motion?

a. Time

b. Mass

c. Work

d. Power

37. What letter is typically used to represent momentum in physic equations?

a. m

b. p

c. v

d. b

38. Finish the formula: Momentum = Mass x _____

a. Velocity

b. Acceleration

c. Voltage

d. Work

39. Which of the following is a unit of measurement for momentum?

a. Nm/s

b. J

c. kgm/s

d. J/s

40. What do we call it when two or more moving objects exert forces on each other for a short period of time?

a. Momentum

b. Work

- c.Collision
- d.Friction

41. Because momentum is a vector measurement, it has both a magnitude and a _____.

- a.Direction
- b.Velocity
- c.Temperature
- d.Speed

MATHMATICS

1. The momentum of a car is 50000 kg m/s . The speed of the car is 25 m/s .What is the mass of the car?
2. If a ball is moving at the velocity of 10 m/s east with a momentum of 50 kg m/s east, what is its mass?
3. A cat weight 20N stands on one end of a see saw and the distance between the cat and the pivot is 3m ,find the moment.
4. A duck stands on one end of a see saw,5m away from the pivot.If the weight of the duck is10 N .find the moment
5. If the velocity of an object changed from 30 m/s to 60 m/s over a period of 10 seconds, what would the average acceleration be?
7. A person walks 60 meters in 1 minute. Then walks 30 meters in 2 minutes. What is their average speed over the 3 minute walk?
8. A car accelerates from rest to a speed of 10 m/s in 20 seconds. What is the acceleration of the car in m/s^2 ?
9. A car slows down from a speed of 20 m/s to rest in 25 seconds. What is the acceleration of the car in m/s^2 ?
10. A plane has a take off speed of 300 km/h. What is the acceleration in m/s^2 of the plane if the plane started from rest and took 45 seconds to take off?

11. A player kicks a ball with a force of 5 N. The ball travels 10 meters. What is the total work?
12. A box is pushed with the a force of 15N. The box travels 2 meters. What is the total work?
13. If it takes 10 J of work to move a rock 15 meters in 5 seconds, what is the power?
14. if it takes 50 J of work to climb a set of stairs, how fast would you have to climb them to use 5 Watts of power?
15. Calculate the pressure exerted on the floor when an elephant who weighs 6000 N stands on one foot which has an area of 20 m²
16. Calculate the pressure exerted on the heel of a boy's foot if the boy weighs 80 N and he lands on one heel which has an area of 16 cm².
17. What is the area of a car tire that touches the road if the car's weight on that tire is 768 N and the pressure exerted on the road is 12 N/ m²?
18. Calculate the pressure exerted on an elevator floor which is 2 meters deep and 3meters wide, if 20 people whose combined weight is 1500N are standing on it.
19. A student uses a glue stick with an area of 4 cm² putting a pressure of 0.5 N/cm² on her book. Calculate the force she puts on the glue stick.
20. A box puts a pressure of 50 N/m² on an area of 0.25 m². Find the force of the box on the floor.
21. The momentum of a car is 30000 kg m/s. The mass of the car is 1500 kg. What is the speed of a car?

QUESTIONS:

1. What is momentum? Write down the Principle of conservation of momentum.
2. Write down examples of momentum in real life .

3. What is pressure?
4. What is a turning force?
5. How do we measure the turning effect of a force?
6. Write down Principle of Moments.
7. What is velocity?
8. What is acceleration?
9. Write down the Equation of motion.
10. Write down the definition of 1. Work 2. energy 3. power 4. Kinetic energy
5. Potential energy
11. What is moment? Write down the types of moment.
12. What is clockwise moment and what is anti-clockwise moment?

Explain the following:

1. Why truck has large momentum but it slows down before a stop?
2. Why does a gun recoil when a bullet is fired?
3. Why is it more difficult to pull the boat on the beach than in the sea?
4. Why is difficult to walk on sand?
5. Why it is useful for the camels to have large feet
6. Why is it more comfortable to sit on a bed then on a fence?
7. Why does a giraffe need a stronger heart than a human?
8. Why do astronauts need spacesuits?
9. A mechanic would choose a long spanner to undo a tight nut