**EMBOCS, NAWALPARASI**

**SPECIFICATION GRID-2081**

**First and second Terminal Examination-2081**

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| S.N | Area | K(16%) | | U(24%) | | A(40%) | | HA(20%) | | Total no of items | Total no of questions | Total marks |
| no of items | Marks | no of items | **marks** | no of items | **marks** | no of items | **Marks** |
| 1 | Set- | **1** | 1 | **1** | 1 | **1** | 3 | **1** | 1 | 4 | 1 | 6 |
| 2 | Arithmetic | **2** | 2 | **2** | 3 | **2** | 4 | **3** | 3 | 9 | 3 | 12 |
| 3 | Menstruation | **1** | 1 | **1** | 2 | **1** | 2 | **-** | - | 3 | 1 | 5 |
| 4 | Algebra | **2** | 2 | **1** | 3 | **2** | 4 | **1** | 2 | 6 | 2 | 11 |
| 5 | Geometry | **1** | 1 | **2** | 2 | **2** | **3** | **1** | 2 | 6 | 2 | **8** |
| 6 | Statistics & problem | **-** | - | **1** | 1 | **1** | **3** | **-** | - | **2** | 1 | **4** |
| 7 | Trigonometry | **1** | 1 | **1** | 1 | **1** | 2 | **-** | - | 3 | 1 | 4 |
|  | Total | **8** | 8 | **9** | 13 | **10** | 21 | **6** | 8 | 33 | 11 | 50 |

**EMBOCS, NAWALPARASI**

**SPECIFICATION GRID-2081**

**First Terminal Examination-2081**

**Class:9 Time: 1 hr 30 min. F.M-50**

**Subject: Comp. Maths**

|  |  |  |  |
| --- | --- | --- | --- |
| S.N | Topics | No. of teaching hrs | Marks for examination |
| 1 | Set | 10hrs | 6 |
| 2 | Arithmetic   1. Taxation | 10hrs | 12 |
| 3 | Menstruation   1. Area of Triangle | 4 hrs | 5 |
| 4 | Algebra  sequence and series | 8 hrs | 11 |
| 5 | Geometry  i. Triangles: up to Triangles inequalities properties | 3hrs | 8 |
| 6 | Statistics & probability   1. Classification and Graphical Representation of data 2. Arithmetic mean | 3hrs | 4 |
| 7 | Trigonometry  i) Trigonometric Ration | 4hrs | 4 |
|  | Total | 42 hrs | 50 |

**Second Terminal Examination-2081**

**Class:9 Time: 1:30 hrs F.M-50**

**Subject: Comp. Maths**

|  |  |  |  |
| --- | --- | --- | --- |
| S.N | Topics | No. of teaching hrs | Marks for exam |
| 1 | Set | - | 6 |
| 2 | Arithmetic  i). Taxation  ii) Commission,Bonus and Dividend | 11hrs | 12 |
| 3 | Menstruation  i) Local land Measurement units in Nepal  ii) Area of four walls, floor and ceiling | 5hrs  6hrs | 5 |
| 4 | Algebra  i) Geometrical concept of  ii) Factorization of type (a4+a2b2+b4)  iii) H.C.F | 4hrs  2hrs  3hrs | 11 |
| 5 | Geometry:   1. Congruent Triangles 2. ii) Similar triangles | 3hrs  4hrs | 10 |
| 6 | Statistics & probability  i) Median | 3hrs | 2 |
| 7 | Trigonometry  i) Trigonometric Ratios of some standard angles | 4hrs | 4 |
|  | Total | 45hrs | 50 |

**EMBOCS, NAWALPARASI**

**SPECIFICATION GRID-2081**

**Third Terminal Examination-2081**

**Class:9 Time: 3 hrs F.M-75**

**Subject: Comp. Maths**

|  |  |  |  |
| --- | --- | --- | --- |
| S.N | Topics | No. of teaching hrs | Marks |
| 1 | Set | - | 6 |
| 2 | Arithmetic   1. electricity bill   ii) water bill | 3hrs  2hrs | 13 |
| 3 | Menstruation  i) Prism | 6hrs | 13 |
| 4 | Algebra  i) L.C.M  ii) Indices | 3hrs  4hrs | 15 |
| 5 | Geometry  i) Parallelogram  ii) Construction | 4 hrs  5 hrs | 13 |
| 6 | Statistics & probability  i) quartiles , mode and range  ii) Introduction to probability  iii) Empirical probability | 6hrs  5hrs  3hrs | 11 |
| 7 | Trigonometry | - | 4 |
|  | Total | 41 hrs | 75 |

**EMBOCS, NAWALPARASI**

**SPECIFICATION GRID-2081**

**Annual Examination-2081**

**Class:9 Time: 3 hrs F.M-75**

**Subject: Comp. Maths**

|  |  |  |  |
| --- | --- | --- | --- |
| S.N | Topics | No. of teaching hrs | Marks |
| 1 | Set | - | 6 |
| 2 | Arithmetic  i) Telephone bill  ii) Calculation of Taxi fare | 4hrs  3hrs | 13 |
| 3 | Menstruation  i) Cylinder and sphere | 11 hrs | 13 |
| 4 | Algebra:  Simultaneous linear question | 9hrs | 15 |
| 5 | Geometry  i) Circle | 5 hrs | 13 |
| 6 | Statistics & probability | - | 11 |
| 7 | Trigonometry | - | 4 |
|  | Total | 32 hrs | 75 |

**EMBOCS, NAWALPARASI**

**SPECIFICATION GRID-2081**

**Third and Annual Examination-2081**

**Class:9 Time: 3 hrs F.M-75**

**Subject: Comp. Maths**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| S.N | Area |  | K(16%) | | U(24%) | | A(40%) | | HA(20%) | | Total no of items | Total no of questions | Total marks |
| no of items | **marks** | no of items | **Marks** | no of items | **marks** | no of items | **marks** |  |
| 1 | Set- |  | **1** | **1** | **1** | **1** | **1** | **3** | **1** | **1** | **4** | **1** | **6** |
| 2 | Arithmetic |  | **2** | **2** | **2** | **3** | **3** | **5** | **2** | **3** | **9** | **3** | **13** |
| 3 | Menstruation |  | **2** | **2** | **2** | **3** | **2** | **5** | **2** | **3** | **8** | **3** | **13** |
| 4 | Algebra |  | **2** | **2** | **2** | **4** | **3** | **7** | **1** | **2** | **8** | **3** | **15** |
| 5 | Geometry |  | **2** | **2** | **2** | **3** | **2** | **5** | **2** | **3** | **8** | **3** | **13** |
| 6 | Statistics & problem |  | **2** | **2** | **2** | **3** | **2** | **4** | **2** | **2** | **8** | **2** | **11** |
| 7 | Trigonometry |  | **1** | **1** | **1** | **1** | **1** | **1** | **1** | **1** | **4** | **1** | **4** |
|  | Total |  | **12** | **12** | **12** | **18** | **14** | **30** | **11** | **15** | **49** | **16** | **75** |

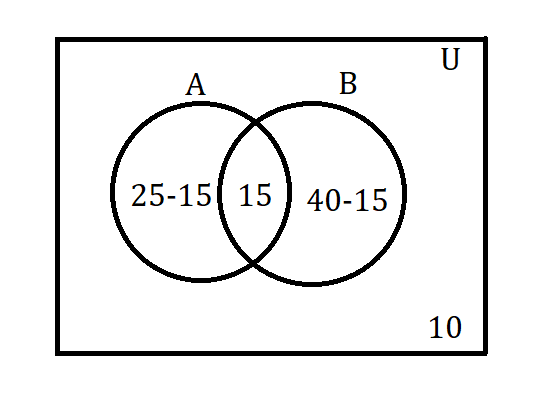
**Internal Evaluation**

|  |  |  |
| --- | --- | --- |
| S.N. | Area of Evaluation | Marks |
| 1 | Participations: attendance and participation in classroom activities | 3 |
| 2 | Marks of terminal examinations | 6 |
| 3 | Practical /Project work (at least 1 project work from each area should be prepared and presented in class) | 16 |
|  | Total | 25 |

Model Question

first Terminal Examination

Class-9 Time-1hr.30min. F.M-50

1. e]glrqsf] cWoog u/L k|Zgsf] pQ/ lbg'xf];\ . ( study the given venn diagrams and attempt the question.)

a) n(A) sf] dfg kQf nufpg'xf];\ . (calculate n(A) . (1)

b) n(A-B) sf] dfg kQf nufpg'xf];\ . (1)

c) Prove that: k|dfl0ft ug'{xf];\ . (3)

d) sf] dfg lgsfNg'xf];\ . (Calculate (1)

2) 8]le8 / cg';fsf] dfl;s tna qmdzM Rs. 65,000 / Rs. 45,000 5 . s/sf] b/ tnsf] tflnsfdf lbOPsf] 5 . (Monthly salary of David is Rs. 65,000 and that of Anusha is Rs. 45,000. The tax rate is given as below: )

|  |  |  |  |
| --- | --- | --- | --- |
| For married | Up to 6 Lakhs 1%  6 to 8 Lakhs 10%  8 to 11 Lakhs 20% | For Unmarried | Up to 5 Lakh 1%  5-7 Lakhs 10%  7-10 Lakhs 20% |

1. xfdL ;/sf/nfO{ s/ lsg ltg{ rfxfG5f} < (Why do we pay tax to government?) (1)
2. 8]le8 / cg';fsf] 5'§f5'6} jflif{s cfDbfgL kQf nufpg'xf];\ . (Calculate the individual yearly income of David and Anusha.) (2)
3. cg'\;f cljjflxt eP pgn] ltg'\kg]{ jflif{s s/ kQf nufpg'xf];\ . (Calculate the tax paid by Anusha at the edn of year if she is unmarried individual) (2)

3. एलईडी टिभीको अंकित मूल्य रु. ४५००० हो। निश्चित प्रतिशत छुट दिएर र १३% भ्याट थपेर रु. ४०,६८० मा टिभी बिक्री हुन्छ। अब दिइएको जानकारीको आधारमा तलका प्रश्नहरूको उत्तर दिनुहोस्। (The marked price of an LED TV is Rs.45000.After allowing certain percent discount and adding 13% VAT, the TV is sold at RS. 40,680.Now on the basis of given information answer the questions below.

a) भ्याट भन्नाले के बुझ्नुहुन्छ ?(What do you mean by VAT? ) (1)

b) VAT बिना T.V को बिक्री मूल्य गणना गर्नुहोस्। (Calculate the selling price of T.V. without VAT. ) (2)

C) छुट प्रतिशत पत्ता लगाउनुहोस्।Find the discount percentage. (1)

4. Zenith' s monthly salary is Rs 35000 and annual tax allowance is Rs 250000.

-h]lgysf] dfl;s cfDbfgL Rs. 35,000 5 / jflif{s ? RS. 250,000 ;Ddsf] cfDbfgLdf s/ 5'6 5 . \_

a) Find his yearly income. (1)

-p;sf] jflif{s cfDbfgL kQf nufpg'xf];\ . \_

b) Find the taxable income. (1)

-s/ ltg'{kg]{ cfDbfgL kQf nufpg'xf];\ .\_

c) What is the rate of social security Tax? (1)

-;fdflhs ;'/Iff s/sf] b/ slt xf] <\_

5. Sarmila made a triangular garden near her house in Daldale with its side 8ft,3ft and 9 ft.-;ld{nfn] u|Lg lxn l;6Lsf] cfˆgf] 3/ 5]pdf tLg e'hfx?sf] gfk qmdzM 8ft, 3ft / 9ft ePsf] lqe'hfsf/ au}Frfsf] lgdf{0f ul/g\ .\_

a) State the formula to find area of above triangular garden. (1)

-pQm au}Frfsf] If]qkmn lgsfNg cfjZos kg]{ ;'q n]Vg'xf];\ .\_

b) Calculate the area of that triangular garden. (2)

-au}Frfsf] If]qkmn lgsfNg'xf];\ .

c) If Sarmila was able to increase side of triangular field having side 3 ft. to 8ft. examine the new area of above triangle. (2)

-olb pgn] 3ft sf] lsgf/fnfO{ 8ft sf] agfpg ;lsg eg] pQm au}Frfsf] gofF If]qkmn k/LIf0f ug'{xf];\ .\_

6. Pp6f ;efxnsf] klxnf] klQmdf 14 l;6, bf];|f] klQmdf 16 l;6, t];|f] klQmdf 18 l;6 / rf}yf]df 20 l;6 u/L ;dfgfGtl/o cg'qmd agfP/ l;6x? /flvPsf] 5 . (In an auditorium hall there are 14 seats in the first row, 16 in the second row, 18 in the third row, 20 in the fourth row and so on in arithmetic sequence.)

a) ;dfgcGt/ lgsfNg] ;'q n]Vg'xf];\ . (Write a formula to calculate common difference.) (1)

b) cg'qmdsf] s'g kb 60 x'G5 < (Which term of given A.P. is 60 ?) (3)

7. Answer the following questions from the given series: 4+8+16+32+64

-lbOPsf] >]0fLaf6 lgDg k|Zgsf] pQ/ lbg'xf];\ M 4+8+16+32+64

a) What type of series is it? -of] s'g k|sf/sf] >]0fL xf] .\_ (1)

b) Find the common ratio. -;dfg cg'kft kQf nufpg'xf];\ .\_ (2)

c) find the nth term. - nth kb kQf nufpg'xf];\ .\_ (2)

d) Write the series in sigma notation. -lbOPsf] >]0fLnfO{ sigma notation df JoQm ug'{xf];\ .\_

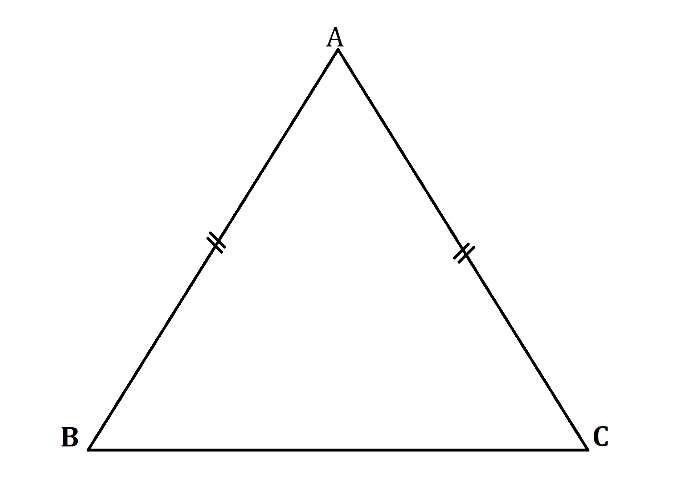
(2)

8. ABC Pp6f lqe'h xf] . (ABC is a triangle)

a) Define a Triangle. (1)

b) km/s gfksf b'O{j6f lqe'h ABC lvlr ;a}eGbf 7'nf] sf]0fsf] ;Dd'v e'hf ;a} eGbf nfdf] / ;a} eGbf ;fgf] sf]0fsf] ;Dd'v e'hf 5f]6f] x'G5 egL k|of]ufTds ljlwaf6 l;4 ug'{xf];\ . (Draw two triangle of ABC of different shape and size and verify experimentally that side opposite to the greatest angle is longest and the side opposite to the smallest angle is the shortest.) (2)

c) AB=3.5 cm, BC= 4.2 cm / AC= 3.6 cm eP b]vfpg'xf]; . (If AB = 3.5 cm, BC= 4.2 cm and AC=6.3 cm then, Show that . (1)

9. Examine the given triangle carefully and answer the given questions:

-+lbOPsf] lqe'hsf] cWoog u/L lgDg k|Zgx?sf] pQ/ lbg'xf];\ .+\_

a) If AB=AC, what is the relation between and ? (1)

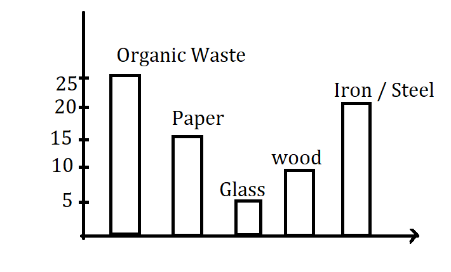
- AB=AC eP / sf] ;DaGw n]Vg'xf];\ .\_

b) =800 ,work out the value of . (1)

-olb =800 eP sf] dfg ktf nufpg'xf];\ . \_

c) Recall the relation between AD and BC if D is mid -point of base BC. Also mention the vertical angle. (2)

-BC sf] dWoljGb' D eP AD / BC sf] ;DaGw n]Vg'xf];\ / zLif{sf]0fsf] gfd n]Vg'xf];\ . \_

10. sf7dfG8f} gu/kflnsfn] s'g} dlxgfdf 75 6g kmf]xf]/ l/;fOsn u¥of] . tnsf] lrq k9L pQ/ lbg'xf];\ . (Kathmandu Metropolitan City Recycled 75 tons of trans in a certain month. Study the given bar diagram and answer the questions.)

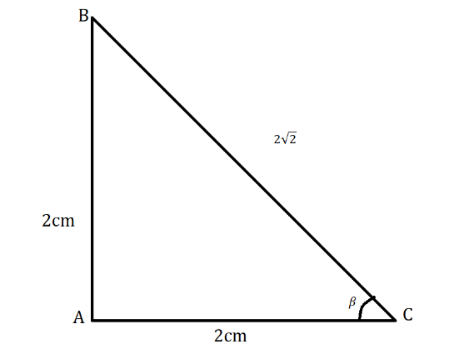
a) ;a} eGbf a9L dfqfdf l/;fOsn u/]sf] kmfxf]/sf] k|sf/

s'g xf] < (Find the highest amount of trashed

recycled.) (1)

b) tnsf] tYof+saf6 dWos kQf nufpg'xf]; ( Find the mean from given data.) [3]

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Income(Rs) | 4000 | 5000 | 6000 | 7000 | 8000 | 9000 |
| No. of persons | 10 | 20 | 11 | 22 | 12 | 4 |

**

**11. ABC** is a right triangle in which is the reference angle.

- ABC Pp6f ;dsf]0f lqe'h xf] . h;df B ;Gbe{ sf]0f xf] .\_

a) Write a mathematical relation of AB, BC and AC. (1)

-AB, BC / AC sf] ul0flto ;DaGw n]Vg'xf];\ .\_

b) What trigonometric ratio does represent? (1)

- n] hgfpg] lqsf]0fldlt cg'kft s'g xf] . \_

c) If sin = and AB=4 cm ,find the length of BC. (2)

sin = / AB=4 cm eP BC sf] nDafO kQf nufpg'xf];\ .

Model Question

Third terminal examination-2081

Class: 9 Time: 3 hour F.M. =75

Subject: Mathematics

1. यदि भए

(If then),

* 1. दिइएको समुह हरुलाई सूचीकरण विधिद्वारा लेख्नुहोस (Write the given sets by listing method.) [1]
  2. दिइएको समुह हरुलाई भेन चित्र मा देखाउनुहोस (Show the given sets in a Venn-diagram.) [1]
  3. प्रमाणित गर्नुहोस (Prove that): [3]
  4. कुन समुहले एकात्मक समुह जनाउछ?किन? (Which of the sets represent singletons and why? [1]

1. किरण बैंकका कर्मचारी हुन् । उनको मासिक तलब रु. 65,000 । यदि उसले एक वर्षमा 15 महिनाको तलब भत्ता र बोनस सहित पाउँछ । तलका प्रश्नहरूको उत्तर दिनुहोस। (Kiran is an employee of a bank. His monthly salary is Rs. 65,000. If he gets 15 months salary in a year including allowances and bonus. Answer the following questions.)

|  |  |  |  |
| --- | --- | --- | --- |
| For Unmarried | | For married | |
| Annual income | Tax Rates | Annual income | Tax Rates |
| Upto Rs 5,00,000 | 1% | Upto Rs 6,00,000 | 1% |
| Additional Rs 2,00,000 | 10% | Additional Rs 2,00,000 | 10% |
| Additional Rs 3,00,000 | 20% | Additional Rs 3,00,000 | 20% |
| Additional Rs 10,00,000 | 30% | Additional Rs 9,00,000 | 30% |
| Any additional amount above Rs 20,00,000 | 36% | Any additional amount above Rs 20,00,000 | 36% |

1. सामाजिक सुरक्षा कर भन्नाले के बुझ्नुहुन्छ ? (What do you understand by the social security tax?) [1]
2. किरण अविवाहित भएमा वार्षिक कति आयकर तिर्नुपर्छ ? (If Kiran is unmarried then how much income tax should she pay annually?) [2]
3. किरण विवाहित भएमा वार्षिक कति आयकर तिर्नुपर्छ ? (If Kiran is married then how much income tax should she pay annually? ) [2]
4. क्लिनिकमा कार्यरत डाक्टरको मासिक तलब रु. 40,000 । उनले कुल औषधि बिक्रीमा 5% कमिशन पाउँछन् । यदि एक महिनामा औषधिको कुल बिक्री रु 10,00,000 छ भने, निम्न प्रश्नहरूको जवाफ दिनुहोस्:(A doctor working in a clinic has monthly salary Rs. 40,000. He gets 5% commission on total sales of medicine. If total sales of medicine in a month is Rs 10,00,000 then, answer the following questions)
   1. 5% कमिशनको अर्थ के हो ? (What is the meaning of 5% commission?) [1]
   2. एक डाक्टर द्वारा प्राप्त मासिक कमीशन रकम पत्ता लगाउनुहोस्। (Find the monthly commission amount received by a doctor.) [1]
   3. डाक्टरको मासिक आम्दानीको कति प्रतिशत कमिशन रकम हो?(What percent of monthly income of the doctor is the commission amount?) [2]

|  |  |  |  |
| --- | --- | --- | --- |
| Electricity Charge | | | Rate of water consumption per month(0.5 inch pipe) |
| Units | Service Charge | Energy Charge |
| 0-20 | Rs. 30 | Rs. 3 | * Min charge up to 10 units: Rs. 100 * Extra charge= Rs 32 per unit |
| 21-30 | Rs. 50 | Rs. 6.50 |
| 31-50 | Rs. 50 | Rs. 8.00 |
| 51-100 | Rs. 75 | Rs. 9.50 |

1. जनसेवा माविमा 5 A बिजुली मिटर र 0.5 इन्चको पाइप जडान गरिएको छ । दिइएको शुल्कको दर अनुसार निम्न प्रश्नहरूको उत्तर दिनुहोस्। (Janasewa Secondary School has connected with 5A electricity meter and 0.5 inch pipe.) Answer the following questions according to the given rate of charges.
   1. 1 युनिट बिजुलीले के बुझ्नुहुन्छ ? (What do you understand by 1 unit of electricity?) [1]
   2. वैशाख 1 को मिटर रिडिङ 04560 र जेठ 1 गते 04610 भए वैशाख महिनाको बिजुलीको बिल तिर्न आवश्यक पर्ने रकम गणना गर्नुहोस्। (Calculate the amount required to pay the electricity bill of the month of Baisakh if the meter reading of Baisakh 1 is 04560 and that of Jesth 1 is 04610.) [2]
   3. वैशाख महिनामा 40 युनिट पानी खपत भए वैशाख महिनाको पानीको बिल पत्ता लगाउनुहोस्

(If 40 units of water was consumed in the month Baisakh, find the water bill of the month Baisakh.) [1]

1. त्रिभुजकार जग्गाको नापहरु 2:3:4 को अनुपातमा रहेका छन यसको परिधि 900m रहेका छन

(The sides of a triangular field are in the ratio of 2:3:4. Its perimeter is 900m then)

* 1. यदि त्रिभुजका तीनवटा भुजा क्रमशः a,b र c भए, त्रिभुजको अर्ध-परिधि कति हुन्छ?

If three sides of triangle are a,b and c respectively, what is the semi-perimeter of triangle? [1]

* 1. जग्गाको क्षेत्रफल कति हुन्छ ? (What is the area of the land?) [2]
  2. प्रति मिटर 200 रुपैयाँका दरले जग्गामा पाँच पटक तारबार लगाउन कूल लागत कति हुन्छ ?

(What is the total cost of fencing the land five times at the rate of Rs 200 per meter? [1]

1. चित्रमा ठोस प्रिज्म देखाइएको छ । (In the figure a solid prism is shown.)
   1. त्रिभुजाकार प्रिज्मको छड्के सतहको क्षेत्र पत्ता लगाउने सूत्र के हो?

E

B

A

C

F

D

13cm

11cm

20cm

What is formula to find Lateral surface area of triangular prism? [1]

* 1. प्रिज्मको पुरा सतह क्षेत्र पत्ता लगाउनुहोस्।

(Find the total surface area of prism.) [2]

* 1. प्रिज्मको आयतन पत्ता लगाउनुहोस्। (Find the volume of prism?) [2]

1. विद्यालयको षडमुखा आकारको कोठाको चार भित्ताको क्षेत्रफल 88 वर्ग मिटर छ । कोठाको लम्बाइ र चौडाइ क्रमशः 6 मिटर र 5 मिटर छ। कोठामा 3 वर्ग मिटर क्षेत्रफल भएको एउटा ढोका र 2.25 वर्ग मिटर क्षेत्रफल भएको 2 वटा झ्यालहरू छन्। (The area of four walls of a cuboid shaped room in a school is 88sq meter. The length and breadth of the room are 6m and 5m respectively. The room has one door having area 3 sq meter and 2 windows having area 2.25 sq meter.
   1. प्रति वर्ग मिटर रु 175 को दरले ढोका र झ्याल बाहेक यसको चार भित्तामा रङ लगाउन कूल लागत कति लाग्छ ?

What is the total cost of painting its four walls excluding door and windows at the rate of Rs 175per square meter? [2]

* 1. कोठाको चार भित्तामा ढोका र झ्याल बाहेक रु 250 प्रति वर्ग मिटरमा wall paper टाँसिएको भए त्यसलाई पेन्ट गर्दा भन्दा कति बढी वा कम खर्च लाग्छ ? तिनीहरूलाई तुलना गर्नुहोस्। (If the wall paper is pasted in the four walls of the room excluding door and windows at the rate of Rs 250 per square meter then how much does it cost more than when it is painted? Compare them.) [2]

1. यदि अंक गणितीय श्रेणीमा तेस्रो पद -40 र 13औ  पद 10 भए (In A.P., the 3rd term is -40 and 13th term is 10.)
   1. पहिलो पद र सामान अन्तर पत्ता लगाउनुहोस (Find the first term and common difference.) [2]
   2. 30औ पद पत्ता लगाउनुहोस (find 30th term of AP.) [1]
   3. कति औ पद 35 हुन्छ पत्ता लगाउनुहोस (Which term of the AP is 35?) [2]
2. तलका प्रश्न हरुको उत्तर दिनुहोस (Answer the following questions)
   1. खण्डिकरण गर्नुहोस (Factorize:)) x2-2x+1-a2-4ab-4b2 [3]
   2. In 8x3-1 and 16x4+4x2+1 write common factors. [1]
   3. Find L.C.M of 8x3-1 and 16x4+4x2+1 [2]
3. तलका प्रश्न हरुको उत्तर दिनुहोस (Answer the following questions)
   1. (10xo), को मान कति हुन्छ ? (What is the value of (10xo),?) [1]
   2. सरल गर्नुहोस (Simplify): [3]
4. फरक आकार भएका दुईवटा त्रिभुजहरु ∆ABC खिच्नुहोस त्यसपछि BC लाई D सम्म लम्ब्याउनु होस (Draw two triangles having different shapes then extend BC up to D then)
   1. बाहिरी कोण ∡ACD विपरीत भित्री कोण∡ABC र ∡BAC को योगफल बराबर हुन्छ भनि प्रयोगात्मक रूपमा प्रमाणित गर्नुहोस्। Verify experimentally that the exterior angle is equal to the sum of opposite interior angle. [3]
   2. को नाप लिई तिनीहरु बीच तुलना गर्नुहोस

Find measuring then compare them. [1]

* 1. यदि पूरक कोणको दुई कोणको अनुपात 2:3 छ भने, तिनीहरूलाई पत्ता लगाउनुहोस्।

If the ratio of two angles of a supplementary angle is 2:3, find them. [2]

1. दिइएको चित्रको आधारमा निम्न प्रश्नहरूको उत्तर दिनुहोस् On the basis of given figure answer the following questions.

|  |  |  |
| --- | --- | --- |
| a | b | c |
| C  B  D  A  8cm  ? | C  B  D  A  1150  ? | C  B  D  A |

* 1. समानान्तर चतुर्भुज ABCD, AB=8cm मा, CD को नाप कति हुन्छ ?

In a parallelogram ABCD, AB=8cm, what is the measure of CD? [1]

* 1. समानान्तर चतुर्भुज ABCD मा, यदि छ भने समानान्तर चतुर्भुज ABCD मा, यदि ∡B हो भने, को मान पत्ता लगाउनुहोस्।

In the parallelogram ABCD, if Find the value of In the parallelogram ABCD [1]

* 1. समानान्तर चतुर्भुज ABCD मा, र भए को मन पत्ता लगाउनुहोस

In the parallelogram ABCD, if and find the value of. [2]

1. तलका प्रश्न हरुको उत्तर दिनुहोस Answer the following questions
   1. समलम्ब चतुर्भुजको एउटा बिशेषता लेख्नुहोस Write a property of rhombus. [1]
   2. एउटा चतुर्भुज को रचना गर्नुहोस जसमा AB=5.4cm, BC=5.1cm, CD=4.9cm, AD=6.2cm र विकर्ण BD=5.8cm छन Construct a quadrilateral ABCD in which AB=5.4cm, BC=5.1cm, CD=4.9cm, AD=6.2cm and the diagonal BD=5.8cm. [2]
2. यदि दिइएको तथ्यांक को मध्यक 38 भए If the mean of given data is 38.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Weight | 25 | 30 | 35 | 40 | 45 |
| No. of people | 6 | 2 | M | 10 | 3 |

* 1. M को मान पत्ता लगाउनुहोस what is the value of m? [2]
  2. दिइएको तथ्यांकमा रित कति हुन्छ पत्ता लगाउनुहोस What is the mode of the data? [1]
  3. यदि m =4 भए मध्यक पत्ता लगाउनुहोस If m=4, find the mean of the data. [1]
  4. सन्चित बारम्बरता तालिका बनाई मध्धिका पत्ता लगाउनुहोस

Construct a cumulative frequency table and find median. [2]

1. एउटा झोलामा 5 वोटा रातो, 2 वोटा सेतो र 3 वोटा कालो बल हरु छन जस बाट एउटा बल निकाल्दा

A bag contain 5 red balls, 2 white balls and 3 black balls. If a ball is drawn at random,

* 1. कुनै सम्भाव्यताको न्युनतम र अधिकतम मान कति हुन्छ?

What are the maximum and minimum probabilities of any events? [1]

* 1. रातो बल आउने सम्भाव्यता कति हुन्छ? What is the probability of getting red balls? [1]
  2. सेतो वा कालो बल आउने सम्भाव्यता कति हुन्छ?What is the probability of getting a white or a black ball?[1]
  3. कालो बल नआउने सम्भाव्यता कति हुन्छ?What is the probability of not getting black balls? [2]

1. दिइएको चित्रमा, ;dsf]0fL त्रिभुज हो जहाँ , र कर्ण AC=20m रहेका छन

In the adjoining figure, is right angled triangle in which, , and hypotenuse AC=20m.

* 1. आधार र कर्ण भुजाको नाप पत्ता लगाउनुहोस

Find the length of base and perpendicular. [1]

* 1. Sin A को मान कति हुन्छ पत्ता लगाउनुहोस what is the value of sin A? [1]

C

600

A

B

20m

* 1. प्रमाणित गर्नुहोस (Prove that): sin2A = 1 - cos2A [1]
  2. Tan A को त्रिकोणमितीय अनुपात लेख्नुहोस

Write the trigonometric ratio of Tan A. [1]

**THE-END**

