

Name:

Enrolment No:



UNIVERSITY OF PETROLEUM AND ENERGY STUDIES
End Semester Examination, December 2019

Course: BBA AIS

Semester: III

Programme: Cost and management accounting

Time: 03 hrs.

Max. Marks: 100

Instructions: ALL QUESTIONS ARE COMPULSORY

SECTION A (20 Marks)

S. No.	Multiple Choice Questions	Marks	CO
Q 1	Fire insurance of stock can be apportioned on the basis of ----- a) Value of stock b) Volume of stock c) Number of stores requisition d) Material used	2	1
Q 2	Batch costing is useful to determine ----- a) Maximum quantity of output b) Minimum quantity of output c) Economic batch quantity d) Profit of batches	2	2
Q 3	Contract account is ----- a) A nominal account b) A real account c) A personal account d) Either nominal account or real account	2	1
Q 4	The cost which is to be incurred even when a business unit is closed is a ----- a) Imputed cost b) Historical cost c) Sunk cost d) Shutdown cost	2	1
Q 5	Direct expenses are also called a) Major expenses b) Chargeable expenses c) Overhead expenses d) Sundry expenses	2	2
Q 6	Total of all direct costs is termed as a) Prime cost b) Works cost c) Cost of sales d) Cost of production	2	2
Q 7	Basic objective of cost accounting is a) Tax compliance b) Financial audit c) Cost ascertainment	2	3

	d) Profit analysis		
Q 8	Process costing is suitable for a) Hospitals b) Oil Refinery firms c) Transport firms d) Brick laying firms	2	3
Q 9	Difference between job time and attendance time is a) Job time a) Actual time b) Over time c) Idle time	2	3
Q 10	Operating costing is suitable for ----- a) Job order costing b) Contractors c) Sugar industries d) Service industries	2	3

SECTION B

Q1	<p>A job can be executed either through workman A or B. A takes 32 hours to complete the job while B finishes it in 30 hours. The standard time to finish the job is 40 hours.</p> <p>The hourly wage rate is same for both the workers. In addition workman A is entitled to receive bonus according to Halsey plan (50% sharing) While B is paid bonus as per Rowan plan. The works overheads are absorbed on the job at Rs. 7.50 per labour hour worked. The factory cost of the job comes to Rs. 2600 irrespective of the workman engaged.</p> <p>Find out the hourly were rate and cost of raw materials input. Also show cost against each element of cost included in factory cost.</p>	10	2										
Q2	<p>Mr. A is working by employing 10 skilled workers. He is considering the introduction of some incentive scheme-either Halsey scheme (with 50% bonus) or Rowan scheme of wage payment for increasing the labour productivity to cope with the increased demand for the product by 25%. He feels that if the proposed incentive scheme could bring about an average 20% increase over the present earnings of the workers, it could act as sufficient incentive for them to produce more and he has accordingly given this assurance to the workers. As a result for the assurance, the increase in productivity has observed as revealed by the following figures for the current month:</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td>Hourly rate of wages(guaranteed)</td> <td>Rs. 2</td> </tr> <tr> <td>Average time for producing 1 piece by one worker at previous performance (this may be taken as time allowed)</td> <td>2 hours</td> </tr> <tr> <td>Number of working days in the month</td> <td>25</td> </tr> <tr> <td>Number of working hours per day for each worker</td> <td>8</td> </tr> <tr> <td>Actual production during the month</td> <td>1.250 units</td> </tr> </table>	Hourly rate of wages(guaranteed)	Rs. 2	Average time for producing 1 piece by one worker at previous performance (this may be taken as time allowed)	2 hours	Number of working days in the month	25	Number of working hours per day for each worker	8	Actual production during the month	1.250 units	10	2
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Actual production during the month	1.250 units												

- Required:
- 1) Calculate effective rate of earnings per hour under Halsey scheme and Rowan scheme.
 - 2) Calculate savings to Mr. A in terms of direct labour cost per piece under the schemes.
 - 3) Advise Mr. A about the selection of the scheme to fulfil assurance.

SECTION-C (30 Marks)

Q 1 A Company manufacturing two products uses standard costing systems. The following data relating to April, 2016 have been furnished to you:

Products	A (Rs.)	B (Rs.)
Standard cost per unit:		
Direct materials	2	4
Direct wages	8	6
Fixed overheads	16	12
	26	22
Units processed/in process		
Beginning of the month: All materials applied and 50% complete in respect of labour and overheads	4,000	12,000
End of the month: All materials applied and 80% complete in respect of labour and overheads	8,000	12,000
Units completed and transferred to warehouse during the month	16,000	20,000

You may use average cost method to analyze. The following were the actual costs recorded during the month:

Direct materials purchased at standard price amount to Rs. 2,00,000 and actual cost of which is Rs. 2,20,000. Direct materials used for consumption at standard price amount to Rs. 1,75,000.

Direct wages for actual hours worked at standard wages rates were Rs. 4,20,000 and at actual wage rates were Rs. 4,12,000. Fixed overheads budgeted were Rs. 8,25,000 and actual fixed overheads incurred were Rs. 8,50,000.

Required:

- e) Direct material price variance at the point of consumption and at the point of purchase
- ii) Direct material usage variance
- iii) Direct wage rate and efficiency variance
- iv) Fixed overheads volume and expenditure variance
- v) Standard cost of WIP at the end of the month.

15

3

Q2	PQR Ltd. Produces an article by blending two basic raw materials. The following standards have been set up for raw materials:				15	2
	Material	Standard mix		Standard price per Kg		
	A	40%		Rs. 4.00		
	B	60%		Rs. 3.00		
	The standard loss in processing is 15%. During September, 2018, the company produced 1,700 Kgs of finished output. The position of stock and purchases for the month of September, 2018 is as under:					
Material	Stock on 1-9-2018	Stock on 30-9-2018	Purchase during September, 2018			
	(Kgs.)	(Kgs.)	(Kgs.)	Cost (Rs.)		
A	35	5	800	3,400		
B	40	50	1,200	3,00		
Calculate the following variances: a) Materials price variance, b) Materials usage variance, c) Materials yield variance, d) Materials mix variance e) Total material cost variance. Assume First in First out method for the issue of material. The opening stock is to be valued at standard price.						

SECTION-D (30 Marks)

Q1	Pieco Engineering Company has received an once-off export order for its sole product that would require the use of half of the factory's total capacity, which is estimated at 4 lakh units per annum, the condition of the export order is that it has to be accepted in full: acceptance of part quantity is not allowed. The factory is currently operating at 60% level to meet the demand of its domestic customers. As against the current price of Rs. 6.00 per unit, the export offer is Rs. 4.70 per unit, which is less than the total cost of current production. The cost breakdown is given below				15	3
	Rs. Per unit					
	Direct material	2.50				
	Direct labour	1.00				
	Variable expenses	0.50				
	Fixed overhead	1.00				
	Total cost	5.00				
	The company has the following options:					
	<ul style="list-style-type: none"> a) Accept the export order and cut back domestic sales as necessary. b) Remove the capacity constraint by installing necessary balancing equipment and also by working overtime to meet both domestic and export demand. This will increase fixed overheads by Rs. 15,000 annually, and additional cost for overtime work will amount to Rs. 40,000 for the year. c) Appoint a sub-contractor to manufacture the additional requirement and meet the domestic and export requirement in full by supplying raw materials, paying a conversion charge @ Rs. 2.00 per unit and appointing a supervisor at a salary of Rs. 3,000 per month for checking the quality of the product and controlling operations at the manufacturing unit. d) Refuse the order. 					
	Required:					
f) A statement of costs and profits under each of the above four options;						

	ii) Your recommendation, with reasons as to which of these options the company should decide upon.																										
Q2	<p>A ltd. Operating at 75% level of activity produces and sells two products X and Y. The cost sheets of these two products are as under:</p> <table border="1"> <thead> <tr> <th>Units produced and sold</th> <th>Product X</th> <th>Product Y</th> </tr> </thead> <tbody> <tr> <td></td> <td>3,000</td> <td>2,000</td> </tr> <tr> <td>Direct materials</td> <td>10</td> <td>20</td> </tr> <tr> <td>Direct labour</td> <td>20</td> <td>20</td> </tr> <tr> <td>Factory overheads (40% fixed)</td> <td>25</td> <td>15</td> </tr> <tr> <td>Administration and selling overheads (60% fixed)</td> <td>40</td> <td>25</td> </tr> <tr> <td>Total cost per unit</td> <td>95</td> <td>80</td> </tr> <tr> <td>Selling price per unit</td> <td>115</td> <td>95</td> </tr> </tbody> </table> <p>Factory overheads are absorbed on the basis of machine hour which is the limiting factor. The machine hour rate is Rs. 10 per hour. The company receives an offer from Japan for the purchase of Product X at a price of Rs. 87.50 per unit. Alternatively, the company has another offer from Bangkok for the purchase of Product Y at a price of Rs. 77.50 per unit. In both the cases, a special packing charge of Rs. 2.50 per unit has to be borne by the company. The company can accept either of the two export orders by utilizing the balance of 25% of its capacity.</p> <p>Advise the company with detailed working as to which proposal should be accepted and prepare a statement showing the overall profitability of the Company after incorporating the export proposal suggested by you.</p>	Units produced and sold	Product X	Product Y		3,000	2,000	Direct materials	10	20	Direct labour	20	20	Factory overheads (40% fixed)	25	15	Administration and selling overheads (60% fixed)	40	25	Total cost per unit	95	80	Selling price per unit	115	95	15	
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