EXA	NATIONAL SENIOR CERTIFICATE
GRA	12
DAT	Nov-24
SUB	INFORMATION TECHNOLOGY
PAP	1
MAR	150
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SOUTH AFRICAN COMPREHENSIVE ASSESSMENT INSTITUTE
SUID-AFRIKAANSE KOMPREHENSIEWE ASSESSERINGSINSTITUUT

MARKING GUIDELINES

QUESTION 1	***46***	***0***
QUESTION 2	***35***	***0***
QUESTION 3	***38***	***0***
QUESTION 4	***31***	***0***
TOTAL	***150***	***0***

Blanks

47

Marker Code: **Date:**

	Question 1: General programming	MAX	Candidates mark	Comments	Sub-total	SM	CM	IM
1.1.1	imgQ1_1.Stretch := true; ✓	1				0	0	0
	iNumber := spnQ1_1.Value;✓	1				0	0	0
	rCost := rPrice * iNumber ; ✓	1			3	0	0	0
1.1.2	if ✓	1				0	0	0
	iNumber < 5 then ✓	1				0	0	0
	Showmessage('No special discount') ✓	1				0	0	0
	else✓	1				0	0	0
	rCost := rCost -✓	1				0	0	0
	iNumber div 5 *✓	1				0	0	0
	fPrice✓	1			7	0	0	0
1.1.3	rVat := rCost *✓	1				0	0	0
	15/100; ✓	1				0	0	0
	pnlQ1_1.Caption := ✓	1				0	0	0
	FloatToStrf(✓	1				0	0	0
	rVat,ffCurrency,10,2);✓	1			5	0	0	0
1.1.4	edtQ1_1.Text := ✓	1				0	0	0
	FloatToStrF(ffCurrency,10,2);✓	1		type cast		0	0	0
	rCost+ rVat ✓	1			3	0	0	0
1.2.1	For✓	1				0	0	0
	I := 1 to 14 do✓	1				0	0	0
	arrNumber[i] := ✓	1				0	0	0
	inttostr(I) ✓	1			4	0	0	0

1.2.2	assignfile(tfile,'Images.txt');✓	1				0	0	0
	Reset(tfile);✓	1				0	0	0
	while not Eof(tfile) do✓ // for i := 1 to 14 do	1				0	0	0
	readln(tFile,sLine); ✓	1				0	0	0
	CloseFile(tFile);✓	1				0	0	0
	Begin and end✓ in loop	1			6	0	0	0
1,3	sDesck := uppercase ✓	1				0	0	0
	(cmbQ1_3.text) ✓	1				0	0	0
	For I := 1 ✓	1				0	0	0
	to length(sDeck) do ✓	1				0	0	0
	IF sdeck[i] ✓	1				0	0	0
	IN ['A','E','I','O','U]✓	1				0	0	0
	then svowel := svowel ✓	1				0	0	0
	+ sDeck[i] ✓	1				0	0	0
	else sConst:= sConst + sDeck[i] ✓	1				0	0	0
	lbl_vowels.acption := sVowel; ✓	1				0	0	0
	lbl_consonant.caption := sConst;					0	0	0
1,4	itot := 55 becomes: itot := 0; ✓	1				0	0	0
	Delete(soutput,✓	1				0	0	0
	while conditions in brackets ( ) and ( ) ;✓	1				0	0	0
	strtofloat becomes strtoint ✓	1				0	0	0
	inc(itot, inum) ✓ **or use a +**	1				0	0	0
	declare sOut as string var ✓	1				0	0	0
	add .picture ✓ **in the line**	1				0	0	0
	add ; after the end ✓ //	1			18	0	0	0
TOTAL		**46**	**0**		46			

			35	Marker Code: Date:				
	Question 2: Database	MAX	Candidates mark	Comments	Sub-total	SM	CM	IM
2.1.1	Select * ✓	1				0	0	0
	from tblPlayers ✓	1				0	0	0
	order by team,✓	1				0	0	0
	lastName, firstName ✓	1			4	0	0	0
2.1.2	Select Country,✓	1				0	0	0
	count(*) ✓	1				0	0	0
	as [Number of players] ✓	1				0	0	0
	from tblPlayers group by country✓	1			4	0	0	0
2.1.3	Select round ,"0.00") ✓ //No decimals round without par also correct	1				0	0	0
	(avg(age)✓	1				0	0	0
	as [Average Age] ✓	1				0	0	0
	from tblplayers where Team like '✓ //left(team,1) =	1				0	0	0
	+ quotedstr(sTeam + '%')✓	1			5	0	0	0
2.1.4	Update tblPlayers ✓	1				0	0	0
	set Team = "Avengers" ✓	1				0	0	0
	where team = "A" ✓	1			3	0	0	0
2.1.5	Select GameName,Date,FirstName,LastName ✓	1				0	0	0
	from tblTeamGames,tblPlayers'✓	1				0	0	0
	where month(date) =✓	1				0	0	0
	spnQ2.Text +✓	1				0	0	0
	AND✓	1				0	0	0
	tblTeamGames.WinnerID = tblPlayers.playerId✓	1			6	0	0	0
2.2.1	iKeep := tblTeamGames['WinnerID'] ; ✓	1				0	0	0
	tblTeamGames.Edit;✓	1				0	0	0
	tblTeamGames['WinnerID'] := tblTeamGames['LoserID'];✓	1				0	0	0
	tblTeamGames['LoserID'] := iKeep;✓	1				0	0	0
	tblTeamGames.Post;✓	1			5	0	0	0
2.2.2	tblTeamGames.First;✓	1				0	0	0
	while not tblTeamGames.eof do✓	1				0	0	0
	tblPlayers.First; while not tblPlayers.eof do	1				0	0	0
	if tblPlayers['PlayerID'] = tblTeamGames['WinnerID'] then✓ *//or use AND*	1				0	0	0
	if sTeam = tblPlayers['Team'] then✓	1				0	0	0
	iTeamPoints := iTeamPoints + tblTeamGames['WinningTeamScore'] ;✓	1				0	0	0
	tblPlayers.Next ✓	1				0	0	0
	tblTeamGames.Next;✓	1			8	0	0	0
TOTAL		**35**	**0**		35	0	0	0

			38	Marker Code:	Date:				
	Question 3: OOP	MAX	Candidates Marks	Comments	Sub-total	SM	CM	IM	
3.1.1	constructor create(sSuit: string; ✓	1				0	0	0	
	iIndex : integer);✓	1				0	0	0	
	fSuit :=sSuit;✓	1				0	0	0	
	fRank := iIndex+2;✓	1				0	0	0	
	fCard := '';✓	1				0	0	0	
	fWin := 0; ✓	1			6	0	0	0	
3.1.2	procedure tCard.DealCard; ✓	1				0	0	0	
	iNum := random(14);✓	1				0	0	0	
	if inum = 13 ✓	1				0	0	0	
	then bJoker := true else bJOker := false;✓	1				0	0	0	
	case Random(4) of✓	1				0	0	0	
	0: fCard := 'Cards\'+ 'Clubs'+ +'.png';✓	1				0	0	0	
	inttostr(iNum+2) ✓	1				0	0	0	
	All four options✓	1			8	0	0	0	
3.1.3	function tCard.getFileName: string ; ✓	1				0	0	0	
	result := 'Cards\'+ fSuit+✓	1				0	0	0	
	inttostr(fRank)+'.png'; ✓ //not + 2 already in contructor	1			3	0	0	0	
3.1.4	function tCard.getPcCard;✓	1				0	0	0	
	DealCard;✓	1				0	0	0	
	result := fCard;✓	1			3	0	0	0	
3.1.5	function tCard.getValue: real ;✓	1				0	0	0	
	result := fWin;✓	1			2	0	0	0	
3.1.6	Procedure tCard.SetWinnings; ✓	1				0	0	0	
	if getFileName ✓	1				0	0	0	
	= fCard then✓	1				0	0	0	
	fWin := fRank*100✓	1				0	0	0	
	if bJoker then✓	1				0	0	0	
	fWin := 1000;✓	1			6	0	0	0	
3.2.1	objCard := tCard.✓	1				0	0	0	
	create(rgpQ3.Items✓	1				0	0	0	
	[rgpQ3.ItemIndex],✓	1				0	0	0	
	rgpQ3b.ItemIndex);✓	1			4	0	0	0	
3.2.2	imgPlayer.Picture.LoadFromFile(objCard. ✓	1				0	0	0	
	getFileName✓	1				0	0	0	
	imgPC.Picture.LoadFromFile(objCard.getPcCard✓	1				0	0	0	
	objCard.SetWinnings;✓	1				0	0	0	
	lblQ3.Caption := ('Price Money ' +#13+ ✓	1				0	0	0	
	floattostrf(objCard.getValue,ffcurrency,10,2))✓	1			6	0	0	0	
TOTAL	omodate	**38**	**0**		38	0	0	0	

```
case Random(4) of
0: fCard :=  'Cards\'+ 'Clubs'+sNum+'.png';
1: fCard :=  'Cards\'+ 'Diamonds'+sNum+'.png';
2: fCard :=  'Cards\'+ 'Hearts'+sNum+'.png';
3: fCard :=  'Cards\'+ 'Spades'+sNum+'.png';
end;
```

			31	Marker Code: Date:				
Question 4: Problem solving	MAX	Candidates Marks	Comments	Sub-total	SM	CM	IM	
4,1	for c := 1 to 13 do✔	1				0	0	0
	sLine := Deck[c] + #9 +✔	1				0	0	0
	Deck[c+ 13] + #9 +✔	1				0	0	0
	Deck[c+26] + #9 ✔	1				0	0	0
	+ deck[c+39]; ✔	1				0	0	0
	redQ4.Lines.Add(sLine);✔	1			6	0	0	0
4.2.1 shuffle	for i := 1 to 52 do✔	1				0	0	0
	j := Random(52) + 1;✔	1				0	0	0
	TempCard := Deck[i]; ✔	1				0	0	0
	Deck[i] := Deck[j]; ✔	1				0	0	0
	Deck[j] := TempCard;✔	1			5	0	0	0
4.2.2 CalcTot	for j := 1 to 2 do✔	1				0	0	0
	arrPlayerTotal[j] := 0;✔	1				0	0	0
	for i := 1 to 10 do✔	1				0	0	0
	if arrPlayers[j,i] <> '' then✔	1				0	0	0
	arrPlayerTotal[j] := arrPlayerTotal[j] + ✔	1				0	0	0
	CardValue(arrPlayers[j,i]);✔	1			6	0	0	0
4.2.3 remove	for c := 2 to ✔	1				0	0	0
	iNumDeckCards do✔	1				0	0	0
	Deck[c-1] := Deck[c];✔	1				0	0	0
	dec(iNumDeckCards);✔	1			4	0	0	0
4.2.4 hand	Result := 0;✔	1				0	0	0
	for i := 1 to 10 do✔	1				0	0	0
	if arrPlayers[PlayerIndex,i] <> '' then✔	1				0	0	0
	Inc(Result);✔	1			4	0	0	0
4.2.5 Winner	if ((arrPlayerTotal[1] <= 21) and ✔	1				0	0	0
	(arrPlayerTotal[2] < arrPlayerTotal[1])) then✔	1				0	0	0
	edQ4.Lines.Add(arrPlayerNames[2]+ ' wins!');✔	1				0	0	0
	else if arrPlayerTotal[2] = arrPlayerTotal[1] then✔	1				0	0	0
	redQ4.Lines.Add(arrPlayerNames[2]+ ' ties with the dealer.')✔	1				0	0	0
	else redQ4.Lines.Add(arrPlayerNames[2]+ ' loses to the dealer.');✔	1			6	0	0	0
TOTAL		31	0		31	0	0	0

```
card :=0;
for r := 1 to 13 do
begin
  sline :='' ;
  for c := 1 to 4 do
     begin
     inc(card);
     sline := sline+ deck[card]+#9;
     end;
  redQ4.Lines.Add(sline);
```

```
for i := 1 to iNumDeckCards -1 do
   deck[i] := deck[i+1];
dec(iNumDeckCards);
```